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ABSTRACT

The Commonwealth Fund is a philanthropic foundation established in 1918 with the mandate "to do something for mankind." The fund in 1974 responded to a wide variety of ideas and proposals in the field or medical education and health care. A dominant goal of the fund has been to support and encourage medical centers in their efforts to develop effective systems for bringing health care to their surrounding communities. However, as in previous years, the fund's foremost interest was to strengthen medical education. In a related area, the fund continued its support for medical schools that are attacking, through expansion or modification of their curricula, those behavioral problems with roots in medicine that have awide impact on our society. The annual report describes in detail the aims of each project for which funds were appropriated including: strengthening medical education, health policy, social medicine, education for allied health professions, medical problems in human behavior, and international medical education. A report on the Harkness Fellowship program is included along with additional financial statements concerning the fund. (PG)

The Commonwealth Fund is a philanthropic foundation established in 1918 by the late Mrs. Stephen V. Harkness with the broad mandate "to do something for the welfare of mankind." The policies and program of the Fund are determined by an independent Board of Directors, whose members are elected to annual terms. Since its earliest years, the Fund has concentrated its attention and resources primarily on the health and medical care needs of American society. Currently, most of its grants are to university medical centers for broad programs to improve medical education and to strengthen their leadership in the development of community and regional systems of health care.

Through the Harkness Fellowships program, founded in 1925, the Fund has maintained a long-standing commitment to the role of international education in advancing understanding between this country and others.

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The Commonwealth Fund

FIFTY-SIXTH ANNUAL REPORT

FOR THE YEAR ENDED

JUNE 30, 1974

U.S. DEPARTMENT OF HEALTH
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
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1974

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No special forms are necessary in applying to the Commonwealth Fund for financial support. In most cases, the application procedure is best started by submitting a concise, two or three page letter, in which the applicant sets forth the goals of his project, the need for undertaking the project at this time, the major participants, the institutional and other back-up resources at his disposal, the stage of the project for which funding is sought, an estimate of the total budget required, and where he expects to raise support not requested from the Fund.

If the Fund's officers decide, after staff discussion, that the project falls within the Fund's guidelines and current priorities, a detailed proposal may be invited.

The Commonwealth Fund makes all grants to established, tax-exempt organizations or institutions, which administer the funds; no grants of any kind are made directly to individuals.

The Fund's primary concerns are with medical education, health care delivery, education of the allied health professions, and major social problems that have a definable medical component. With few exceptions, Fund awards for innovative programs in these areas are made to university medical centers. The Fund's regular guidelines do not permit support for building programs, for the annual budgets of established programs or organizations, for basic or clinical research, or for individual scholarships or fellowships. Applicants should become familiar with the Fund's specific areas of interest before submitting applications; copies of the Fund's *Annual Report*, describing all current projects, are available free upon request.

Procedures for seeking support under the Commonwealth Fund Book Program, which provides assistance toward the preparation and publication of major scholarly works in medicine, medical education, and health care, are described in the appropriate section of this Report.

Guidelines for application to the Harkness Fellowships Program, which is described in the appropriate section of this Annual Report, may be obtained by writing to: Director, The Harkness Fellowships, 38 Upper Brook Street, London, W1Y IPE, England or The Harkness Fellowships, The Commonwealth Fund, 1 E 75th Street, New York, N.Y. 10021.

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Introduction

THE FUND continued this year to respond to a wide variety of ideas and proposals in the fields of medical education and health care. The philosophy of the Fund has been that, as one of relatively few foundations in the medical field, and with limited resources, it could serve society well by developing a symbiotic relationship with the nation's great medical schools and university medical centers—playing the role of a funding partner in the projects that these institutions identified as most important. This philosophy, and its implementation during the past decade, were the subject of the extensive introduction to last year's *Annual Report*.

A dominant goal of the Fund since the late 'Sixties has been to support and encourage medical centers in their efforts to develop effective systems for bringing health care to their surrounding communities. Such projects are now underway at many medical centers and no major new projects in this category were supported by the Fund this year. With a variety of new health care systems in operation at medical centers across the nation, the Fund's staff is convinced that serious efforts must soon be made to assess their strengths and weaknesses, their long-term financial viability, and their still-tentative interface with programs in medical education.

Despite such questions, however, a number of the health care systems started by medical centers in recent years are already providing crucial sources of data and experience for the health care legislation now being considered by Congress. The health maintenance organiza-

tion developed in Columbia, Maryland by the Johns Hopkins University School of Medicine and the Harvard Community Health Plan in Boston and Cambridge—to name just two out of many possible examples—have taught policy makers in the health field much about the problems of establishing effective systems of health care delivery.

The existence of such models will not be of maximum use to state and federal governments, however, unless they have access to the information, analysis, and planning expertise needed to inform their decision-making in the area of health policy; this will require substantial new programs of research and training in the university and other settings. Continuing and expanding last year's effort, the Fund this year supported several institutions—and a number of specific projects—in the health policy area. Among major investments was a grant to the Institute of Medicine, a semi-autonomous unit of the National Academy of Sciences that was established to provide a continuing source of data and analysis on the gamut of medical and health care issues. Other major grants in the health policy area went to the Harvard University Center for Community Health and Medical Care, the National Health Council, Inc., and the Harvard University School of Public Health.

As in previous years, however, the Fund's foremost interest in fiscal 1974 was to strengthen medical education. Efforts to expand existing medical schools, and to start new schools, have been widespread in the last decade and, at least at this time, have made progress in meeting the nation's requirements for health manpower. But there remains a clear need to improve the quality of medical education and to alter some aspects of its structure—espe-

cially the interface between medical schools and their parent universities.

Expanded or modified medical school curricula are also needed to train doctors, and new types of health care practitioners, to cope with problems that are inadequately addressed by the existing health care system. Grants for experiment and reform in health education were made this year to the City College of the City University of New York (for a six-year medical education track that will emphasize problems of urban health care), to Mt. Zion Hospital and Medical Center (for a new type of mental health practitioner), to Tufts-New England Medical Center (for exploration of the potential role and acceptability of a "Primary Care Physician"), and to the other institutions described in the section of this Report entitled "Strengthening Medical Education."

In a related area, the Fund continued its support for medical schools that are attacking, through expansion or modification of their curricula, those behavioral problems, with roots in medicine, that have a wide impact upon our society. Unless medical education squarely confronts such issues as drug and alcohol abuse, the causes of violence and aggression, the population explosion, the nature and treatment of learning disabilities, and the ethnic beliefs and traditions that inhibit the access of some groups to modern medical care, physicians will not be able to care fully and effectively for those patients who most need their help. An effort that has commanded an appreciable part of the Fund's resources in recent years—and that is now well underway—is the education of medical students in human sexuality and the problems of sexual dysfunction. Grants for this and other "Medical Problems in Human Behavior" were made this year to Stanford Uni-

versity School of Medicine, the University of Miami School of Medicine, the University of California at San Francisco, and to The Population Council and Planned Parenthood-World Population.

During the course of the fiscal year ended June 30, 1974, The Commonwealth Fund made appropriations for its philanthropic program amounting to $10,916,922. This brought the total of the Fund's philanthropic appropriations since its establishment in 1918 to $195,486,844.

Of this amount, $31,000,000 came out of principal.

The following Annual Report describes in detail the aims of each project for which funds were appropriated. A complete list of the amounts is given on pages 129 to 131. Other financial information, including statements of assets, liabilities, income, and administrative expenses, as well as a list of all bonds, notes, and other securities held by the Fund, begins on page 111.

QUIGG NEWTON

MEDICAL EDUCATION
AND COMMUNITY HEALTH

MEDICAL EDUCATION AND COMMUNITY HEALTH

THE number of Commonwealth Fund grants for fiscal year 1974 is smaller than in recent years because several grants made this year were unusually large. For the purpose of this section of the Annual Report, the approximately forty grants made this year have been grouped under six headings. These are, in the order they appear: (1) strengthening medical education; (2) health policy; (3) social medicine; (4) education for the allied health professions; (5) medical problems in human behavior; and (6) international medical education.

STRENGTHENING MEDICAL EDUCATION

The Fund this year continued, in a highly-selective way, to support new approaches to the structure and content of medical education, with experiments aimed at increasing its efficiency and at preparing physicians to meet new needs or needs that have heretofore been given too little attention.

Columbia-Presbyterian Medical Center Fund, Inc.

The Fund made a major contribution to the capital campaign of the Columbia-Presbyterian Medical Center—comprising Columbia University College of Physicians and Surgeons, The Presbyterian Hospital, and their affiliated institutions—which must raise $133 million during the next ten years for modernization of the Center's facilities and expansion of its endowment.

Since its inception, the Columbia-Presbyterian Medical Center has had a unique relationship with The Common-

wealth Fund and its founders. Edward S. Harkness—a major benefactor of the Fund and its first president—was among the prime planners and supporters of the concept of integrating The Presbyterian Hospital and the College of Physicians & Surgeons into a great center for teaching, research, and patient care. Through very substantial gifts over several decades, and by his dedication to the idea of the Medical Center, from its planning until his death in 1940, Mr. Harkness demonstrated clearly that it was among the most important interests of his life. In the spirit of the Harkness family's commitment—and in recognition of Columbia-Presbyterian's nationwide impact as a model for patient care and medical education—the Fund itself has made larger investments in this institution than in any other.

Although the Medical Center is unquestionably one of the world's most advanced and prestigious health institutions, many of its key education and patient care facilities have remained essentially unchanged for as long as half-a-century. These facilities are no longer adequate for the Center's multiplied student enrollment, its unprecedented faculty size and volume of faculty activity, the highly-technological and specialized nature of modern medicine, and the demands of modern medical education. Mounting pressure from such sources can no longer be met by the stopgap measures that the Center, until now, has taken to adapt its facilities to contemporary demands; deteriorating physical conditions now threaten to halt the growth of its new medical and allied health education programs and even to compromise the quality of its patient care.

The trustees of the University, The Presbyterian Hospital, and the Columbia-Presbyterian Medical Center Fund, Inc.—the latter a joint fund-raising corporation—

have evolved a coordinated schedule of construction and renewal that will enhance the capabilities of every component of the Medical Center. Chiefly in the next half-decade, but extending through 1983, the Center will undertake:

—Construction of the Augustus Long Library-Health Sciences Center.

—Expansion and reconstruction of the Children's Medical and Surgical Center of New York (Babies' Hospital).

—Expansion and renovation of Vanderbilt Clinic.

—Modernization of the College of Physicians & Surgeons Building.

—Renovation and reconstruction of The Presbyterian Hospital, The Neurological Institute, and the Edward S. Harkness Eye Institute.

—Construction of a new, central laboratory facility for clinical testing and diagnosis.

—Construction of a new Pediatric X-Ray Suite in the Children's Medical and Surgical Center.

—Expansion of the Medical Center's central power plant.

—Raising of $20 million in additional endowment for the Center's medical education and patient care activities.

Particularly urgent among these projects, and clearly relevant to the Fund's central concern with strengthening medical education, is construction of the Augustus Long Library-Health Sciences Center, the only wholly-new construction planned for the next decade. The Health Sciences Center will be a multipurpose, twenty-level tower, designed to provide Columbia University's health sciences faculties with a totally-integrated environment for teach-

ing and research. It will make possible the pursuit of educational objectives that are either impractical or severely compromised in current physical facilities. The building is designed for four broad, interrelated functions:

(1) *Health sciences library and information services.* Four levels of the new facility will be devoted to the health sciences collection of Columbia University and its related services, permitting active storage and distribution of more than 400,000 volumes. Sophisticated back-up services will include a Biomedical Communications Network, via teletypewriter, for access to medical libraries throughout the region and across the nation. Extensive study and seminar facilities will permit use of the library by more than 750 students and faculty at any given time.

(2) *Audio-Visual and Multimedia Center.* The Augustus Long Library-Health Sciences Center will include facilities for the thorough integration of media technology into health sciences education and research—not only in the new building, but throughout the Medical Center. The building's seventh level will be an advanced center for media production and distribution, with two fully-equipped television studios, photographic and graphic arts production facilities, media distribution and control offices, and support services.

(3) *Teaching Center.* Four levels of the building will provide modern teaching areas and facilities for the entire spectrum of the University's health sciences programs. The concentration of these facilities in a single, thoroughly-modern building will make a *reality* of interdisciplinary teaching for medical students and core instructional courses for different professions, which have been major advances in health science educational *theory*.

(4) *Research laboratories.* The top nine levels of the facility will be devoted to the massive clinical and basic sciences research program that has put the Columbia-Presbyterian Medical Center among the world's leaders in academic medicine and biomedical science.

The educational objectives for which the Augustus Long Library-Health Sciences Center is specially-designed are the cardinal innovations in medical education that the Fund has supported and helped to disseminate for more than two decades: a flexible curriculum in the basic sciences for the spectrum of health professionals, expansion of enrollment in carefully-selected areas such as primary care, an effective medical education continuum from premedical studies to continuing education of the practicing physician, and research and development in both basic and clinical science.

Half of the Fund's contribution this year to the Center's capital campaign was designated for support of the Augustus Long Library-Health Sciences Center; the other half will be directed, by the Medical Center's trustees, to other capital campaign goals that they deem of highest priority.

Brown University

The Fund made a substantial grant to Brown University to aid in its transition from a six-year medical education curriculum to a full M.D.-degree program.

The M.D. program—which was unanimously approved by the Brown Corporation on March 10, 1972, and has already admitted its second full class—is a response both to the logic of Brown's development as a leading University and to Rhode Island's urgent and widely-recognized need for increased health manpower and improvement of health care.

Brown brings to the new enterprise ten years of experience and success with its six-year medical curriculum, major facilities for both didactic and clinical education, a fully-tested and durable system of clinical affiliation with

major Rhode Island hospitals, and the strong endorsement of local physicians and the public. Moreover, Brown's well-developed medical education system, which features a thorough interface between the University and medical education program, is already a recognized model for medical schools across the nation. This six-year Program in Medical Education, leading to a Master of Medical Science degree, was started in 1963 under the direction of a Division of Medical Science. The Division structure emphasized, from the outset, that medical education at Brown would be a University activity, permitting no isolation of medical training from the totality of University education. Within this context, key features of the Program have been a stress upon scholarship and preparation for research; University-wide curriculum planning that has ensured a major input from the social sciences and humanities; a stress upon early identification of superior students and upon their independent choice of an educational sequence; introduction of clinical experience as early as freshman year; and thorough grounding in the basic sciences.

During the Program's ten-year development and operation, a core clinical faculty has been assembled and a base for clinical teaching has been created by means of a system of cooperation with major Rhode Island hospitals. The Program's graduates have consistently been accepted to first-rate medical schools for their final two years of M.D. education.

During the past decade, however, Rhode Island's need for a medical school has become desperate and widely acknowledged. Four out of ten of the State's newly licensed physicians are foreign medical graduates; six out of ten of the State's primary care physicians are over fifty years of age. And, in four of the last five years, Rhode

Island has ranked last, among all states, in the relative number of its young men and women accepted to U.S. medical schools. It became clear that if the physician manpower required to improve the State's health care system was to be available in the coming decades, Rhode Island would need its own viable medical school to train not only its own citizens, but to provide the *quid pro quo* to ensure their acceptance by the medical schools of other states.

In response to these demands, the University in 1971 commissioned a Committee on Medical Education to advise the President and Corporation on the wisdom of moving to a full M.D. sequence. Partly on the basis of the Committee's report, the Corporation of Brown University unanimously voted to inaugurate an M.D. degree program, if certain funding requirements were met. The resulting M.D. program was accredited in November of 1972 and a partial class of twelve students was accepted three months later in January, 1973. In September of last year, a full class of sixty students was accepted into the full M.D. sequence. This was an increment of ten over the class-size of fifty that was originally planned—expansion strongly recommended by the accreditation team.

Brown's integrated, seven-year curriculum permits students to begin their medical education during freshman year in college, or to enter Brown as regular medical students for a four-year M.D. sequence. A fully-tested system of cooperation with eight Rhode Island hospitals, developed during the decade of the six-year medical curriculum, provides the M.D. program with its clinical component. The eight formally-affiliated hospitals represent 1,884 beds for clinical instruction—approximately fifty percent of the State's hospital beds for short-term care.

The wide variety of clinical settings available to Brown's medical students include not only these major

hospitals, but four specialized care facilities—in child psychiatry, community mental health, rehabilitative medicine. and public health. A series of neighborhood health centers, now being developed in Providence with input from Brown, will provide medical students with exposure to systems of primary care and experience in family medicine, community medicine, and varieties of systems for use of allied health personnel. In all, the M.D. program has available approximately 200 part-time, voluntary physicians who have been added during the past decade to Brown's full-time, core faculty in the Division of Biological and Medical Sciences.

The substantial cost of developing and operating the M.D. program during the next seven years (1974–1980) will be met in part by a special conversion grant from the Bureau of Health Manpower of HEW, and also from tuition, payment for clinical services, and regular support from Brown University itself. The remaining funds must be raised from foundations. Thus the Fund's major and continuing investment in the initiation and development of medical education at Brown—an investment that totaled $1.4 million between 1960 and 1970—was increased this year with a substantial, three-year grant, specifically for use in the M.D. program. The success of Brown's development in medical education, and the respect that the six-year Program in Medical Education has earned from medical educators across the country, are seen by the Fund as extremely favorable prognostications of success for the M.D. program that is now underway.

City College of the City University of New York

The City College of New York, in cooperation with a group of major medical schools, has opened a new Pro-

gram in Biomedical Education to enable students to earn the M.D. degree within six years after graduation from high school. Consistent with City College's long-standing commitment to the needs of urban society, and the College's traditional constituency of lower and middle-income City students (plus the newer constituency of Black and Puerto Rican students), the program offers special preparation for students interested in the problems of medical practice in low-income racial and ethnic areas of the inner city.

The Program in Biomedical Education, which admitted a freshman class of sixty in September of 1973, enables students to integrate their undergraduate college education with the equivalent of the first two years (that is, the preclinical years) of medical school. Students who complete the program will be awarded a B.S. degree by City College and can enter as third-year students at a regular medical school.

Moreover, in a virtually-unprecedented demonstration of support for the City College plan, a group of medical schools—including Albert Einstein College of Medicine, Mt. Sinai School of Medicine, the State University of New York at Stony Brook, New York University, and Howard University—have guaranteed to accept with Junior-year standing a total of thirty of the program's students each year. Under this arrangement, students will be interviewed by medical schools at the end of their sophomore year at City College, and a majority will be given assurance of advanced standing in a specific medical school—with the many benefits that this entails in terms of educational planning and security.

The four-year sequence at City College itself has been organized to offer students: (1) unusually thorough education in the basic sciences, with a special orientation to

medicine, (2) training in the preclinical sciences such as anatomy, pharmacology, and social medicine, (3) exposure to clinical work in diagnostic and therapeutic management of patients, and (4) an unusual emphasis upon the social and behavioral science components of medicine and health care delivery. Moreover, the student's early commitment to medical education allows this thorough preparation for medical school to be combined with an exposure to the humanities and social sciences that is comparable to that available to City College undergraduates in other fields.

The Program in Biomedical Education will be a component of the College's newly-organized Center for Biomedical Education, an academic unit that also subsumes the College's Health, Medicine and Society program, its graduate programs in Biomedical Engineering and Biomedical Physics, and its proposed programs in public health and in the allied health professions.

Dr. Alfred Gellhorn—a medical educator who has served as Dean of the Medical School and Director of the Medical Center at the University of Pennsylvania School of Medicine—was recruited as Director of the Center, with the status of a Dean of the College, and is in charge of the Program in Biomedical Education. City College's President, Dr. Robert E. Marshak—who initiated plans for the Program in Biomedical Education and has been its prime mover—has set up a fifteen-man Medical Advisory Council to provide information, advice, and a broad perspective on medical education, premedical education, medical care, and other issues central to City College's role in the education of physicians.

The College's well-established program for teaching and research in the physical, biological, and behavioral sciences, and the major science facilities it has recently

constructed, have enabled it to structure the Program in Biomedical Education, and to admit its sizable freshman class, in a highly cost-effective manner. Forthright support from New York City's medical education community, and a commitment by the City University to assume financial responsibility if the program is successful, add to the program's chances of becoming a first-rate addition to New York's resources for training physician manpower.

The Fund joined several other foundations in contributing to the support needed to ensure the program's success during its four or five crucial, experimental years.

University of Rochester School of Medicine and Dentistry

The Fund made a five-year grant to the University of Rochester School of Medicine and Dentistry for a post-residency training program that will prepare pediatricians for academic careers in the emerging field of child development. The aim is to produce a core of medical school faculty able to train regular pediatricians to diagnose and treat, or if possible prevent, the disturbances in childhood behavior and social development that later become serious impediments to learning and growth.

The program will also emphasize research, and a critical approach to health care services, to enable these future faculty members to bring to the nascent field of child development the insights that are available, but untapped, in the fields of genetics, education, psychology, and social and cultural anthropology; and to create systems through which these insights can be brought effectively to large numbers of children.

Program candidates—who will in each case have completed a standard residency in pediatrics—will enter an

extensive, two-year training period. During the first year, trainees will take graduate courses in developmental psychology and its research methods; during the second, formal course work will continue on a limited basis, but major emphasis will be upon a research project and clinical field work in a key area of child development. Another component of the program will offer medical students ten-week summer fellowships to study some aspect of early child development.

The program was initiated by Rochester's Department of Pediatrics, under its Chairman, Dr. Robert J. Haggerty, and will be carried out in cooperation with the University's faculty in developmental psychology.

It is in some ways comparable to that of the Children's Hospital Medical Center, Boston—to which the Fund gave a major grant in 1972 for the psychiatric component of a program to train academic teachers and researchers in the field of child development. As in the Rochester program, the aim was to produce a cadre of medical school faculty able to prepare regular pediatricians to diagnose and treat disturbances in childhood behavior and social development.

The Rochester program—set within the Medical School's well-developed Department of Pediatrics, which has long had a concern with the learning and behavioral problems of children—should represent another highly effective attempt to enrich the basic education (and research backup available) to the practicing pediatrician.

Peter Bent Brigham Hospital/Children's Hospital Medical Center

At present, students who seek competence in both adult and pediatric cardiology face approximately nine

years of training *after* the M.D. degree—a staggering thirteen years of formal education between graduation from college and the outset of their professional careers. As a result, cardiologic training is customarily focused upon either adult or pediatric cardiology, limiting the categories of patients that the specialist is prepared to treat.

It is doubtful that the nation's urgent need for competent cardiologists can be adequately met under this system of extended, highly-specialized training. Nor is it necessary that subspecialists alone provide all the care required by the nation's millions of heart patients. Competent, general cardiologists, able to provide accurate diagnosis and first-line treatment, can function safely and efficiently with the backup support of university medical centers and other tertiary care facilities, where the great majority of cardiologic subspecialists choose to practice.

The Peter Bent Brigham Hospital and the Children's Hospital Medical Center—both major Harvard Medical School teaching affiliates—have developed a shortened, joint curriculum to meet these needs. The intensive, clinically-oriented program will require only five years of comprehensive post-MD training in cardiology and, more crucially, will produce a practitioner competent in both adult and pediatric cardiology.

The aim is to provide competent, Board certified specialists who can bring cardiologic care to small communities that cannot reasonably support both an adult and pediatric cardiologist, but which desperately require specialized care for the heart patients who now account for fifty to sixty percent of hospitalized illnesses.

The program has been designed, and will be directed by, two cardiologists: Dr. Eugene Braunwald, Head of the Department of Medicine at Peter Bent Brigham Hospital, and Dr. Alexander S. Nadas, Chief of the Cardiology De-

partment at Children's Hospital Medical Center. Both the Sub-Board of Pediatric Cardiology and the Board of Adult Cardiology, as well as the Board of Internal Medicine and Board of Pediatrics, have examined the curriculum and have stated that its graduates will be eligible for certification under their standard procedures.

Under the proposed program, two trainees will be admitted each year, directly from medical school, and will enter the following curriculum: a year of internal medicine, a year of pediatrics, a year each of adult and pediatric cardiology, and a final year of advanced techniques related to cardiology common to patients in both age groups. This rigorous, carefully-supervised, coordinated training will be divided approximately equally between the two hospitals, with chief responsibility for training in pediatric cardiology in the Children's Hospital Medical Center and for adult cardiology in the Peter Bent Brigham Hospital. Training will be heavily weighted to clinical experience, rather than academic and research education, and will emphasize non-invasive techniques (procedures that do not require major surgery). Graduates will be full-fledged cardiologists, eligible for certification by the four Boards mentioned above.

Set within the nationally respected Harvard Medical School hospital system and personally supervised by leading specialists in the field, this shortened curriculum may well have an impact upon graduate training in the many other subspecialty areas.

Mount Zion Hospital and Medical Center

The Fund joined with the Henry J. Kaiser Family Foundation in making a substantial grant to Mount Zion Hospital and Medical Center, San Francisco, for the training

of a new type of professional in the mental health field. The program, which was started by Mount Zion's Department of Psychiatry in cooperation with the University of California, Berkeley, is designed to eliminate all aspects of M.D. training that are unnecessary for the practice of psychotherapy, but which are still taught, in many cases, to psychiatric trainees. This should enable the program to combine in its shortened curriculum many more of the relevant elements offered by traditional disciplines such as psychiatry, clinical psychology, and psychiatric social work.

Its graduates, with a new type of degree on the doctoral level, should be fully-rounded, flexible professionals, oriented specifically to the *practice* of psychotherapy—either privately or in the hospital setting—and able to cope in a versatile way with the enormous social needs in the undermanned field of mental health care.

The concept of such a practitioner has been discussed for some years by leaders in the mental health field; thus the Mount Zion program, as the first educational model, will be carefully evaluated in a series of steps devised by the Department of Psychiatry.

The Department, chaired by Dr. Robert S. Wallerstein, a psychiatrist and psychoanalyst, is large, comprehensive, and nationally known. More than fifty students study each year in its four major programs: residency training in general psychiatry, residency training in child psychiatry, predoctoral and postdoctoral training in clinical psychology, and post-Masters training in psychiatric social work. It is upon the basis of this solid achievement in traditional mental health education that the Department claims the prerogative of taking the major innovative step represented by its new program.

In order to produce mental health practitioners with the

necessary aspects of MD-training in the basic and preclinical sciences, Mount Zion has established close collaboration with the University of California, Berkeley, which has recently launched a core curriculum in the health sciences for MD candidates and a variety of other health professionals. Students for the new program in mental health will be selected by a joint committee of faculty from the two cooperating institutions. All candidates will be at the Bachelor of Science level or above. Their five-year training in the mental health program will comprise two major phases:

Phase I: Students will spend approximately two years in the Health Sciences Program at Berkeley, where they will acquire a thorough grounding in the life sciences, social sciences, and psychological sciences; special courses, directed specifically at the program's students, have been established at Berkeley. While Phase I is organized as a highly concentrated education in preprofessional sciences, the program's students will also be introduced to some clinical work during these years.

Phase II: Students will spend their final three years at Mount Zion Hospital and Medical Center, where the primary focus will be upon professional training in the clinical setting. While some course work will be continued at Berkeley, supervised clinical work with psychiatric patients will be the essential educational activity of this phase. Mount Zion's clinical facilities in mental health include an outpatient psychiatric service, a children's psychiatric service, inpatient psychiatric beds, and a Crisis Clinic for psychiatric patients. Each student will be exposed to these different treatment settings and will, from his first year at Mount Zion, carry a clinical caseload of psychiatric patients for whom he will be the primary therapist, working under extensive supervision for from fif-

teen to twenty hours every week. Earlier work will be with ambulatory patients who require short-term consultation; in later years, experience will be with hospitalized psychiatric patients and patients in the Crisis Clinic.

A more formal didactic curriculum of conferences and seminars, many of which the Department already conducts for its other categories of trainees, will continue for the program's students throughout their years at Mount Zion.

At the end of the five-year training period, students will be awarded a doctoral degree by the University of California, Berkeley.

Northwestern University Medical School

The Northwestern University Medical School was given Fund support for an eighteen-month evaluation of the accelerated premedical/medical curriculum it launched in 1961. The curriculum was planned, developed, and operated during its early years with major Fund participation.

This integrated curriculum, designed to lead to the MD degree in six years, was a major innovation at the time it was initiated by Northwestern; it now exists in various forms at more than a dozen universities. By many medical educators, it is considered an attractive model for the nation's entire system of educating doctors. Although the concentration of premedical and medical education into a continuous, six-year span was highly experimental at the outset of the Northwestern program—when MD preparation was virtually synonymous with eight years—the Northwestern plan also stressed crucial, qualitative changes in medical education. Admission of exceptional high school graduates to the College of Liberal Arts at

Evanston, with the guarantee of admission to the Medical School in Chicago two years later, enabled Northwestern to add a number of distinctive emphases to medical training:

(A) The program reduced the sharp division of premedical and medical education, stressing elements of medical training from freshman year forward and closely coordinating basic science and premedical studies. Medical school faculty participated in the education of students from the outset of their college careers, with seminars, conferences, and laboratory demonstrations. Clinical faculty taught such students important clinical implications of basic science education.

(B) Liberal arts and social science education continued through the entire course of MD education. An early stress upon the behavioral science and the humanistic elements of medical education was developed, guided by the philosophy that all preparation should respond to the broadly-conceived needs of the future physician.

The accelerated program graduated its first class in 1967 and, to date, has produced 140 MDs; another 206 students are currently enrolled. By many criteria, the program's results have been excellent: attrition has been low and esprit de corps high, test results of all kinds reveal exceptional development of students, and graduates have been consistently placed in excellent internship programs.

Nevertheless, controversies over certain aspects of the program have persisted among Northwestern faculty. Questions have been raised, for example, about the psychological effects of the program, which produces MDs as young as twenty-one or twenty-two years of age, and about certain less tangible benefits that may be lost in the compression of MD education. More important, perhaps, are the crucial decisions that Northwestern faces about

expansion of the special program—possibly to include the entire class of the Medical School—and expansion of the Medical School class itself, as encouraged by government planners and certain medical educators.

Thus, while the concept of a six-year curriculum has been widely accepted as a legitimate option in medical education, the more profound implications of the Northwestern experiment—in establishing a workable interface between medical schools and their parent universities—are still in the stage of preliminary investigation. As one of the nation's foremost experiments in this area, the Northwestern program warrants a thorough evaluation, not only as planned at present, but on a continuing basis as well.

Tufts-New England Medical Center

Many medical educators have become aware, in recent years, of an increasing disparity between the practice of the primary care physician and the hospital specialist. In broadest terms, it can be said that the primary care physician spends his career in the office practice of medicine, delivering only front line care. He automatically refers patients with serious diseases and concentrates upon treatment or management of those problems—perhaps ninety percent of his caseload—that are functional, self-limiting, or incurable. The specialist, on the other hand, spends his career in hospitals or specialized group practices, dealing primarily with patients who present illnesses that require sophisticated diagnosis and care. He rarely engages in the large-scale screening of patients or in the day-to-day medical care that is the bulk of the primary care physician's caseload.

Both physicians, however, are prepared in identical M.D. programs and learn the same material presented from the same point of view. And the nation's medical schools, seeking to emulate the Harvard or Johns Hopkins model, have tended to stress the kind of elaborate scientific training that is most suitable for the specialist physician and medical researcher. As a result, each type of physician is exposed to much that is irrelevant to his career requirements; medical education for many doctors is made unnecessarily long and expensive; medical students are routinely channeled into specialty training; and the nation suffers an acute shortage of primary care physicians.

Medical educators have perceived this disparity and are turning in a dozen different (and largely uncoordinated and untested) directions in search of a solution. Some are training, or proposing to train, physicians at a relatively low level to handle primary care; others are training specialists in family practice to handle essentially the same problems. Both physicians will receive the regular M.D. degree, however, and both will have the same legal authority to treat the same problems. At best, medical education funds will be used inefficiently; at worst, the nation will confront an increasing number of undertrained doctors with unlimited medical licenses.

The Fund and the Henry J. Kaiser Family Foundation made one-year grants to the Tufts-New England Medical Center for an effort—under Dr. Samuel Proger, the Center's President—to define the role, educational requirements, and public acceptability of a new type of doctor: the "Primary Care Physician." Dr. Proger's investigation, backed by appropriate research and study, will attempt to bring clear defintion to the following major questions.

—What is the most logical role for the "Primary Care Physician"?

—How should his education reflect this role and how should it differ from education of the specialist?

—Should the primary care physician be given a special legal mandate, through adjusted licensure laws, to practice in delimited areas, with requirements for automatic referral of certain problems?

—Can the education of primary care physicians be best accomplished in existing medical schools or in new schools?

—What will be the reaction of the public and the medical profession to the primary care physician?

If these and related questions can be answered convincingly, marked progress will have been made in bringing order to the diverse and *ad hoc* attempts of medical educators to adjust medical education to the realities of the nation's system of medical care.

Association of Medical School Pediatric Department Chairmen, Inc.

The shortage of qualified faculty has been recognized for some time as a chief impediment to expansion of the nation's training capabilities in medicine. Despite this urgent need, the nation's supply of emeritus professors—hundreds of superior and devoted teachers, eager to continue their careers after retirement—has until now been overlooked as a source of manpower. The Fund this year renewed its 1971 grant for the Senior Pediatric Teachers Program, under Dr. Louis K. Diamond, which was designed to bring emeritus professors back into active service to meet the needs of new or expanding departments

that have experienced a chronic shortage of manpower.

Dr. Diamond himself retired from the faculty of the Harvard Medical School in 1968, but has remained fully involved in academic medicine as Professor of Pediatrics and Director, Senior Pediatric Teachers Program, at the University of California, San Francisco. He is a clinical investigator and pediatric teacher and an authority on pediatric hematology; he is the principal author of the classic work, *Atlas of the Blood in Children*, published as a Commonwealth Fund book.

The basic concept of the Senior Pediatric Teachers Program is simple and effective: (1) maintain an up-to-date registry of professors of pediatrics who have retired, or are retiring shortly, and who wish to remain in active service; and (2) maintain an active list of pediatric departments around the country that are in urgent need of senior faculty. On this basis, the Program can accurately and quickly fill a department's special needs. The simplicity and success of the Senior Pediatric Teachers Program is certain to make it an attractive model for similar programs in other areas, such as surgery and internal medicine.

After a year during which Dr. Diamond compiled a registry of available teachers—the response was excellent—the Senior Pediatric Teachers Program began its actual placements in July of 1972. Since that time, teachers have been placed at seven institutions—three of them with relatively new medical programs, to which the example and guidance of a world-renowned pediatrics teacher was of special significance.

In keeping with the Program's format, placements lasted from four-to-six weeks, during which these highly experienced teachers made available their special knowledge, wide experience, and their expertise in various pediatric subspecialties. All participated fully in teaching

graduate and undergraduate medical students, in ward rounds, and in special addresses and seminars at the request of local medical societies. In half of the cases, the teacher involved was immediately invited back for an additional period. In such instances, the institution involved assumes all expenses—a condition that was made clear at the outset of the Program.

Forty-five departments of pediatrics at medical schools across the country have now registered with Dr. Diamond, requesting assignment of a senior pediatric teacher at the earliest possible time. It was to meet this need and to maintain the momentum of the Program that the Fund made a final grant to the Program. The Program also received sufficient support from the National Institutes of Health to place four additional teachers.

National Medical Fellowships, Inc.

For the fourth consecutive year, the Fund contributed to the nationwide efforts of National Medical Fellowships, Inc. (NMF) to achieve a rapid and sizable increase in the number of minority-group students preparing for medical careers.

NMF is the only nationwide private organization dedicated to increasing the number of minority medical students by helping them to finance their medical education. As the nation's medical schools have moved to step up their minority-group admissions, the demands upon NMF's resources have multiplied, underscoring the fact that a chief barrier to progress is lack of student aid funds. NMF, under the leadership of its Executive Director, Dr. William E. Cadbury, formerly Dean of Haverford College, has helped to call attention to the magnitude of this problem.

Encouraging progress toward its solution is reflected in the fact that this year 9.0 percent of first-year medical students were from minority groups, compared to 2.6 percent in 1968–69. This gives clear promise that the goal set in 1970 by the Inter-Agency Task Force on Medical Education of Minority Students—which asked that by 1975–76 ten percent of freshman medical students be from minority groups—will be substantially achieved, and on schedule.

NMF's scholars now comprise well over forty percent of the country's black, Mexican-American, American-Indian, American-Puerto Rican, Hawaiian and other minority-group students studying for the M.D. degree. They are enrolled in approximately 100 schools throughout the country.

Awards in 1974–75 will be made, with few exceptions, to freshmen and sophomore students, since upperclassmen can utilize loans to complete their training without accumulating an intolerable burden of debt. It is estimated that awards will be made to 110 more first- and second-year minority medical students than were helped in 1973–74; under NMF policy, all needy minority students who are accepted by an accredited U.S. medical school are given awards their first and second years. The number of third- and fourth-year students supported varies widely with the need in each year.

Equally important is the attempt that NMF is making to increase the average amount it can give to each student. Because of the rapid rise in the number of minority medical students, this amount has decreased significantly in some years. If sufficient funds are available in the current year, however, NMF will try to increase its average award from $1,360 to $1,400, a relatively small gain in view of the rapidly-rising costs of medical education,

which now average $4,500 a year in tuition, fees, subsistence, and other essential expenses.

While the Comprehensive Health Manpower Training Act of 1971 authorized substantial Federal scholarship funds for medical schools, of which $14.9 million was to go in scholarship aid for minority students, the actual amount for this purpose was $6.8 million in 1973–74—some 6.0 percent less than 1972–73 and nearly forty-five percent less than originally specified by the Act. Since medical schools experienced a 9.6 percent increase in student enrollment in 1972–73, the role of NMF in directly and specifically supporting minority-group medical students remains crucial.

Association of American Medical Colleges (AAMC)

The development and promotion of new programs to prepare physicians and other health practitioners to provide effective primary care—the frontline screening, treatment and health maintenance that the patient usually receives from his family physician or in outpatient clinics—has been a leading concern of academic medical centers in recent years. The nation's shortage of primary care practitioners has resulted, at least in part, from maldistribution of physicians, both in terms of areas of specialization and of geographic distribution; whatever its causes, however, lack of these crucial practitioners is seen by many as a major obstacle to improved access to medical care. And, during the past decade, four prestigious national commissions have identified the decline in the numbers of primary care physicians as a critical problem of the medical care system. A federal initiative to deal with this problem was undertaken in the 1971 Health Manpower Act. There remain, however, crucial and unresolved

issues related to education for primary care, including questions about the role of the nonphysician primary care provider, about common core training of health professionals, and about undergraduate medical education vis-à-vis graduate teaching programs.

To address these and other issues, the Executive Council of the AAMC in 1972 designated primary care education as one of the organization's priority concerns. Under that mandate, the AAMC has now completed a survey of academic medical centers to determine the extent of their involvement in education for primary care; the survey confirmed the AAMC's belief that this issue ranks among the first concerns of medical centers. As a result, the AAMC has established a Task Force on Primary Care to study education and service aspects of primary care and to better serve its constituency of medical schools in this area. As an outgrowth of these efforts, the Fund made a grant to the AAMC for partial support of an "Institute on Primary Care," to be held in October of 1974 to address issues related to training of new health professionals in primary care and to construction of model systems of primary care that include an effective teaching component. Approximately 450 deans, departmental chairmen, and appropriate federal officials will participate in the Institute, the Proceedings of which will be published by the AAMC. Five regional workshops will further explore the issues raised by the Institute and gather extensive information on successful local programs of primary care education and service.

Other Grants to Strengthen Medical Education

(1) The Fund made two grants—one for the 1972–73 academic year and one for the 1973–74 academic year—to

the *College of Medicine and Dentistry of New Jersey* for support of a special program to prepare disadvantaged minority students to enter medicine, dentistry, and the biomedical sciences. The "Students for Medicine Program," conducted each summer on the campuses of the New Jersey Medical College, the New Jersey Dental School, and the Rutgers Medical School, serves three categories of students: college undergraduates interested in studying medicine, dentistry, or biomedical science upon graduation; students who have been accepted already by medical or dental schools, but who may need additional preparation; and high school students who seek an early exposure to medicine or dentistry as career possibilities. Through the program, such students are given early exposure to the medical school environment, to hospital operation, and to faculty and classroom activities. An earlier grant last year provided the equivalent of full stipend support for twelve of the 110 minority students involved in the summer program; participation in the program was up from seventy-four students in the previous year. As a result of efforts during the summers of 1972 and 1973, twenty-eight of these students were accepted, for either medical or dental study, at the three institutions involved. Other students, who had already been accepted into the schools, entered with better preparation for their studies; still others, who are at the high school level, will return to the program this summer for further exposure to career aspects of medicine and dentistry. The success of the program—which now engages the efforts of some forty faculty members in either planning or teaching, plus twenty-five salaried instructors to teach learning skills and basic science—has influenced the entire minority student recruitment and education effort at the institutions involved. This is of crucial importance to such schools, which are

trying to cope with the staggering problems of Newark's impoverished black population.

(2) The Fund renewed its 1971 grant to *Stanford University School of Medicine* for continuation of the work of Dr. Robert A Chase, who is developing and testing a comprehensive sequence of audiovisual instructional units to improve teaching in gross anatomy. Dr. Chase, who is Chairman of Stanford's Department of Surgery, has completed the year-long planning of the film series and has produced and begun the field testing of an excellent prototype teaching unit, which comprises two, hour-long films on the anatomy of the neck and parotid region. This year's support will enable Dr. Chase to transfer his basic material onto video cassettes and to add self-teaching aids that will permit a medical student to learn at his own pace and to question and test his comprehension as he proceeds. Films on other regions of the human anatomy will not be made until the present phase of the project has been tested and proved successful. The Fund's grant was matched in part by the Henry J. Kaiser Family Foundation and in part by Stanford itself.

(3) In November, 1971 the Fund made a major grant to enable Dr. George E. Palade and key members of his research team to move to *Yale University School of Medicine* to form the nucleus of a new Division of Cell Biology. The basis for the transfer from Rockefeller University, where Dr. Palade had spent most of his career, was Dr. Palade's conviction that his basic research in cell biology should be systematically applied to larger biological systems—and that this work could be accomplished best at a university medical center that had a strong tradition of interdisciplinary collaboration between the basic and clinical sciences of medicine. Rockefeller University respected

Dr. Palade's perception of this issue, and Yale appealed to the Fund for the support needed to renovate and otherwise prepare the laboratory and office space required by the new Division of Cell Biology. Yale made a major commitment to the new Division in terms of faculty support and equipping of laboratories to enable Dr. Palade and his group to get the best possible start. With the Fund appropriation, Yale has now renovated the extensive facilities that will be devoted to the Division of Cell Biology; some 7,300 square feet of this laboratory and office space have been specially prepared for Dr. Palade's group. Yale itself has purchased the very expensive scientific equipment required by Dr. Palade, so that he and his staff are nearly ready to begin work. A special obstacle arose this year, however, in completion of this laboratory space, especially in installation of electron microscopes—the use of which is indispensable to Dr. Palade's work. Since the School of Medicine had tapped University sources to the utmost to bring Dr. Palade and his group to the present point, the Fund made a small grant to complete superior arrangements for Dr. Palade's work.

(4) The Fund made a grant to the *New York University School of Medicine* to establish a Genetics Library as a memorial to Dr. Colin M. MacLeod, the medical educator and researcher who served the Fund as Vice President for Medical Affairs from 1966 to 1969. The memorial is a fitting one, not only because of Dr. MacLeod's association with NYU and its genetics program, but as a tribute to his participation in one of the most important biomedical breakthroughs of the century—the identification of deoxyribonucleic acid (DNA) as the chemical basis of heredity. The small, specialized library planned by NYU, and to be called the Colin M. MacLeod Genetics

Library, will formalize the genetics program Dr. MacLeod began. Based in the University's Medical Science Building, the library will house some 2,000 volumes of reference works in both basic and clinical genetics and will serve as a critical resource for the interdisciplinary approach essential to the study of genetics and genetics counseling.

Dr. MacLeod came to the Fund, after a three-year tenure as Deputy Director of the White House Office of Science and Technology, at a critical period in American medical education—when medical schools were struggling with such problems as speeding and expanding the preparation of doctors, coping with the volume of new biomedical discovery, and strengthening the role of medical education in better distribution of high-quality medical care.

His career, however, spanned an extraordinary range of activity in medicine and health: the basic sciences, clinical research, preventive medicine and medical education, as well as public policy aspects of health and scientific affairs.

From 1937 to 1940, he was on the research staff of the Rockefeller Institute (now Rockefeller University), specializing in the fields of infectious diseases, bacterial genetics, and immunology; from 1941 to 1956 he was Professor and Department Chairman of Microbiology at New York University School of Medicine. After a brief tenure at the University of Pennsylvania School of Medicine, he returned to NYU as a Professor of Medicine and, while there, initiated its program in Human Genetics.

Dr. MacLeod died on February 12, 1972 at the age of sixty-three.

The Fund's one-time contribution to the establishment of the library becomes part of a larger fund of gifts do-

nated for this purpose by other foundations and by individual admirers of Dr. MacLeod.

Health Policy

National Academy of Sciences—Institute of Medicine

The Fund made a major, three-year grant for core support of the Institute of Medicine, a semi-autonomous branch of the National Academy of Sciences (NAS); the Institute is seeking to consolidate its position as an independent, national resource for research and policy analysis in the health field.

The Institute was set up in 1970 to succeed the Board of Medicine, an earlier NAS group that the Fund and the Carnegie Corporation of New York helped to initiate and to which the Fund gave a grant in 1968. As an evolution and strengthening of the Board of Medicine concept, the Institute operates under the NAS charter and has the same responsibility to provide data, analysis, and advice on policy development to Congress and the Executive Branch; but it also is free to initiate and carry out projects that it identifies independently.

Until the establishment of the Institute, no national, broadly based private organization existed as a resource for decision makers in the health field. During the Institute's first three years, under Dr. John R. Hogness, it has decisively taken this role, with major studies and policy analyses in the areas of health services, health manpower and education, biomedical research, and ethical-legal issues in health.

The Institute has now selected Dr. Donald S. Fredrickson, a Board-certified internist with top-level administrative experience, to succeed Dr. Hogness. Dr. Fredrickson

comes to the Institute from the National Heart and Lung Institute, where he served as Director of Intramural Research and Chief of the Molecular Disease Branch. He has been a member of the Institute since 1971 and serves on its Executive Committee; he is also a member of the NAS.

With its start-up period coming to a close, the Institute enters upon the five, crucial years during which it will seek to establish its reputation, delineate its permanent role in health policy making, and fix its relationships with government and private sector forces in the health field.

The key to the Institute's structure is its broad professional membership (now 209, with a designated limit of 400). The Institute is in every way a functioning academy, rather than an honorary one; and as a condition of election to their five-year terms, members commit themselves to an active (and uncompensated) role in the Institute's work. Under the Institute's charter, twenty-five percent of such members are elected from professions outside the health field, such as law, economics, engineering, and the basic sciences. This diverse constituency is intended to guarantee the expertise needed to deal with issues that span the health professions. The activities of members are supported and extended by a professional staff that now numbers thirty-two, including fourteen assigned as technical assistants in specific projects. In addition, scholars from academic medicine and government posts are regularly brought to the Institute for periods of up to a year and augment the expertise available for Institute projects.

The Institute's guidelines define six areas of permanent concern: organization and financing of health care, education and manpower policies, priorities and sources of support for biomedical research, measurement and moni-

toring of the quality of health care, prevention of disease, and ethical and legal issues in medicine and health.

During its first three years, the Institute has undertaken projects in each of these areas, with an approximately equal mix of those carried out at the request of government and those initiated entirely by the Institute:

(1) At the request of Congress, in the Comprehensive Health Manpower Training Act of 1971, an Institute "overview committee" is conducting a large-scale study of the average annual cost of education in eight different health professions. The report of the committee—at the conclusion of its twenty-two month, $2.4 million study under the direction of Dr. Julius Richmond—could influence Congress' policy decisions in such matters as capitation support for educational institutions in medicine and allied health.

(2) An Institute committee under Dr. Robert M. Heyssel is conducting a thoroughgoing study, and is preparing policy alternatives, related to the nation's supply of hospital beds for acute care. The report and policy statement soon to be released could influence decision makers in dealing with rapidly proliferating state laws that require all new hospital construction to be based upon a "certificate-of-need."

(3) At the request of the Executive branch, the Institute is conducting a major review, under Dr. Lewis Thomas, of the five-year research program proposed by the National Cancer Institute; the review will evaluate the way scientific priorities have been determined and will assess the management techniques available for carrying out the program.

Major projects now under active development include a study, under Dr. Harvey Estes, of job functions in primary care, with special emphasis upon defining rational

job functions for members of the health care team; an examination, under Dr. Paul M. Densen, of the data needed for effective health care planning, management, and evaluation; and a study, under Walter J. McNerney, of factors that crucially affect the health of the nation's population and that are most vulnerable to attack.

* * *

The Fund also made two smaller grants to the Institute of Medicine this year, for specific projects in the field of health policy analysis and development.

The Institute of Medicine was given modest support for a new staff member to assist its "Committee on Education in the Health Professions" during the fiscal year.

The Committee was entering the second year of a major, long-range review of educational programs in medicine and the other health professions. This survey should result in recommendation, to the Institute, of issues and questions in this area that require in-depth study; the Committee will then inaugurate major investigations of these issues, aimed at evolving recommendations for future directions in health science education.

The newly-formed Committee on Education in the Health Professions, under Dr. Carleton B. Chapman, is an Institute "overview" committee: a study group appointed for a three-year term to provide a continuing focus on a specific area of concern to national health policy. The Committee's twenty-one members represent a mix of major medical schools, schools of dentistry, government health agencies such as NIH, schools of public health, and universities.

The Committee already has made significant progress in its discussion of the shape and direction of the health

delivery system, its future, and its relationship to education. During the past year, the Committee reviewed a dozen or more major issues in this field, including—but not confined to:

—Educational research underway in each field of health professional education and the extent to which research findings are being applied in associated fields.

—Resources and organization of health professional education.

—Implications of any discontinuities in the health education system.

—Responsibility of the health education system for the practitioner after graduation.

—Fundamental principles that might guide the future development of health professional education.

The results of the Committee's study will be integrated with those of other major Institute committees, dealing with health manpower, cost of education, and interrelationships among the health professions. Final committee reports are made public and called to the special attention of policy makers, educators, and others to whom they have special relevance. In addition, the varied makeup of the committees ensures wide dissemination and discussion of study results.

The Fund's one-year support was used for a staff member to assist the Committee on Education in the Health Professions in the extensive review described above; such a staff member becomes a temporary Institute "Fellow," able to devote himself to full-time review and synopsis of the mass of literature that the Committee must consider in its regular working sessions.

A grant was also made for partial support of Mr. Robert M. Ball during a year as scholar-in-residence at the Institute. Mr. Ball has had more than thirty years of experience in the Social Security Administration and, since 1962, served as its Commissioner. Thus he has been responsible for formulation of the Administration's programs and for implementation of them after legislative enactment. He is devoting his time at the Institute of Medicine to retrospective analysis of the Social Security system, with special emphasis upon the Medicare component and its potential as a mechanism for further health care financing. The results of his study will be published as books and articles under Institute auspices. In addition, Mr. Ball will serve as a consultant to the Institute staff and will sit on Institute steering committees—the bodies responsible for conducting major Institute research projects.

Harvard University

The Fund made a three-year grant to the Harvard University Center for Community Health and Medical Care, to enable it to continue its program of postdoctoral fellowships in the face of major cutbacks in Federal training grants.

The interdisciplinary Center, which was established in 1968 under the joint auspices of the University's Medical School and School of Public Health, was given major Fund support for its development and early projects; it is now committed to pragmatic research and direct involvement in health policy making, planning of health care systems, and management of health programs. Under the direction of Dr. Paul M. Densen, the Center has served to focus resources from *all* Harvard faculties upon the anal-

ysis of health care delivery and the education of health professionals of many types.

The Center's permanent staff works closely with policy makers and health program managers, both public and private, on the local, state, and national levels. More particularly, the Center's staff participates in the operation of health agencies in Boston and serves as a coordinating and fact-finding resource for Boston area hospitals.

The Center's method has been to focus upon the specific, practical problems of a given institution or organization, using this as a take-off point for analysis and solution of more general problems. The aim is to drastically reduce the time lag between health systems research and the application of this research to health care problems. In turn, the Center's theories and alternative solutions to health care problems can be tested promptly and modified on the basis of experience.

The fellowship program, which is the Center's chief educational activity, provides MDs and others on the doctoral level with academic education and direct experience in initiating, organizing, managing, and evaluating the problems of today's rapidly-changing health care system.

(1) *Projects.* Fellows become directly involved in agencies and institutions in the health field, where they test their skills on practical problems and examine different approaches to critical evaluation and review of health care programs.

(2) *Course work.* While Center Fellows may simultaneously register in any Harvard graduate school, they are not tied to any degree program. Instead, under the guidance of preceptors from the Center's senior staff, Fellows arrange highly individual sequences of courses, selected from the extensive academic resources of Harvard University.

(3) *Seminars.* During their stay at the Center, all Fellows participate in three parallel seminar series. Such seminars permit a regular exchange of views and regular reports of progress among Fellows and senior faculty—an individual interaction indispensable at this level of specialized education.

Since the inception of the Center, some twenty-five Fellows have been enrolled in this highly specialized training program and the eighteen who have thus far graduated have, almost without exception, assumed high-level positions for which they were specifically prepared by their training and experience at the Center.

The Center has received its major support from private foundations, such as Rockefeller, and from Federal government training grants for health manpower. Last year's cutbacks in Federal training grants made it impossible for the Center to accept any new Fellows in September of 1973.

National Health Council, Inc.

The Nation's health care enterprise consists, at present, of a mosaic of service units and institutions, professional schools and societies, and other organizations, which function under different forms of governance, financing, and regulation. These public and private groups operate with considerable autonomy and the lack of any strong, central organization has made it difficult for them to take concerted action on problems that cut across their individual concerns.

The National Health Council was formed in 1920 to forge links among these numerous nongovernmental, private-sector agencies in health, and over the years it

has fostered joint work among voluntary organizations and professional societies on many matters important to the public, including accounting and reporting standards. It has also sponsored a series of annual forums on such policy issues as health manpower development and has financed and conducted several national projects to study and report on major health questions.

Last year, with the support of the Fund, the Robert Wood Johnson Foundation, and the Kellogg Foundation, a six-man committee headed by Walter J. McNerney, President of National Blue Cross and Board President of the Council, carried out a thorough review of the Council's structure, functions, and goals.

The Committee's main conclusion was that the Council should enlist the participation and membership of all private institutions with a stake in health affairs; this would mean the addition of industrial corporations, insurance companies, civic groups, labor organizations, and social welfare agencies to the Council's current constituency of nonprofit health agencies.

The study committee's report, with these recommendations, was adopted unanimously by the Council's current membership in March, 1973. The structure of the Board was reconstituted and enlarged, and a reorganization committee was established under Mr. McNerney to formulate and carry out a three-year program for transformation of the Council. The Fund, the Robert Wood Johnson Foundation and the Kellogg Foundation again joined in support of the Council, this time with three-year grants for the tasks that face the Council in major redefinition of its internal structure, membership base, and program.

The project will be headed by Edward H. Van Ness, who became the Council's new Executive Director in Oc-

tober of 1973, after serving as the administrator of the Health Planning Division of New York State's Office of Planning Services. Thus the preparation of the Council's future plans will be under the direction of the person responsible for implementing them. The aim of the project is to prepare and implement a detailed blueprint for the Council's future operations—its priorities and programs, membership expansion drive, staffing needs, and long-term financing. Emphasis will be put on the Council's role in four areas:

(1) Efforts to improve understanding of critical public policy issues in health by nongovernmental leadership groups from such areas as business, labor, and agriculture, as well as health.

(2) Fact-finding studies and reports on major health problems, such as child care needs and services, which could be of practical help to those engaged in solving them.

(3) Technical assistance to strengthen the private-sector organizations and agencies in health.

(4) Development of community and regional collaboration among groups with shared interests—family service agencies and visiting nurse associations, for example.

In addition, the project will initiate plans and a timetable for increasing the Council's membership from the current level of seventy organizations to at least 200. The project will also establish projections for future staffing and financing needs, and will implement a dues structure and fund-raising plan for meeting the Council's new income requirements.

In its new role, the Council could become a prime force for uniting and strengthening the private sector of the nation's health care system.

Harvard University Medical School

The Fund this year made two grants to support completion of the comprehensive, national "Study of Surgical Services to the United States" [SOSSUS], which was started by the American Surgical Association and the American College of Surgeons in 1970 and supported in part by the Fund at that time.

SOSSUS has involved many of the nation's surgeons in an assessment of our health system's capabilities in surgery and documentation of the steps required to assure uniform access to good surgical care.

SOSSUS's ten subcommittees, headed by representatives of many of the nation's departments of surgery, have now completed three years of information-gathering, aimed at assembling heretofore unavailable (or incomplete) information about: how and to whom surgery is provided, quality of surgical care, costs, modes of financing, numbers and distribution of surgical subspecialists, nature and adequacy of all levels of education of surgeons, research problems and needs in surgery, ethical issues, and the role of allied health personnel in surgery. In many cases, preliminary analysis has also been completed and valuable publications have been made available on an interim basis.

The largest single component of SOSSUS has been undertaken by the interdisciplinary, inter-university Manpower Evaluation Subcommittee, under Dr. Francis D. Moore of Harvard University's Department of Surgery. The Subcommittee has already largely completed:

(1) a thorough statistical study of the nation's surgical manpower/population ratio, as compared with that of European

and Asian countries; a study of the distribution, by state and subspecialty, of surgical manpower in urban and rural areas; and a study of surgical residents and their role in health care; and,

(2) comprehensive studies of five representative regions of the United States, focusing upon the quality and cost efficiency of all surgical care delivered during a one-year period.

The third and most crucial aspect of the Subcommittee's task is also nearing completion. It entails a comprehensive effort to compile a statistical profile of the nation's surgeons: their work habits, performance standards, operative workloads, incomes, practice modes, time utilization, and career patterns. There remains to be completed major work in analysis, formulation, and preparation for publication of the Subcommittee's statistical data.

Other aspects of the SOSSUS that will be finished in coming months are:

(1) Efforts of the Subcommittee on Organization, Financing, and Delivery of Surgical Care to define and analyze the fiscal relationships and practice of organizations of American surgery.

(2) Efforts of the Subcommittee on Interprofessional Relationships to analyze the jurisdictional problems within American surgery.

(3) Ongoing operation of the Executive Office and administration of SOSSUS, under Dr. George D. Zuidema, Chairman of Surgery, Johns Hopkins University School of Medicine.

With completion of all data gathering and preliminary analysis, examination of initial subcommittee reports by the SOSSUS Executive Committee and by relevant bodies of the ACS and ASA will begin; ACA and ASA advisory

committees will recommend steps that should be taken to ensure implementation of the report, when it has been published.

Based upon preliminary discussion and analysis of the study's data, it seems likely that major recommendations for change will emerge from the SOSSUS effort. Such recommendations would guide not only efforts of the ASA and ACS, but also those of national and local government and of the individual, influential surgeons who have been involved in SOSSUS.

In addition to Fund contributions, SOSSUS has received support from various Federal government sources, from the American Surgical Association, and from the Richard King Mellon Foundation, the Henry J. Kaiser Family Foundation, and other foundations.

Harvard University School of Public Health

Although the last decade's remarkable proliferation of new diagnostic and therapeutic procedures has resulted in clear and substantial benefits, it has generated disturbing problems as well. New, often controversial, medical and surgical procedures are introduced and tested under a wide variety of conditions and degrees of control; procedures that are seriously questioned among clinical researchers continue for many years in large segments of the health care system; and medical science's astonishing armamentarium of techniques—many too expensive for universal application—raises questions about equitable distribution and about costs vis-à-vis benefits, especially in the case of the incurably ill.

The scope of these problems can be suggested by a sampling of issues now being raised by clinical researchers and analysts of our health care system:

—Hysterectomy, the operation that accounts for a higher total of hospital days than any other surgical procedure performed in this country, is far less frequent in nations with putatively comparable medical care systems.

—Little is known about the relative effectiveness of various medical and surgical techniques for treating peptic ulcers, which account for five million hospital days each year.

—Many clinicians are concerned that coronary artery bypass surgery should undergo further clinical trials; others feel that the procedure is too widely accepted to make such trials relevant; further, if such surgery were offered to all who could benefit from it, the cost would be staggering.

—The medical value of prolonged hospital stays after such common procedures as gall bladder surgery is seriously questioned in many quarters; millions of hospital days are at stake.

—Dramatic developments in diagnostic laboratory testing, resulting in very wide application of tests that can add hundreds of dollars to the patient's bill, have led clinical researchers to question the cost effectiveness of such tests in many situations.

It is clear that the country could benefit immeasurably from a systematic investigation of such issues by a qualified institution, with enough prestige to bring about a rapid response throughout the health care system to its recommendations.

Harvard University has established a "Center for the Evaluation of Clinical Procedures" to attempt this task under the direction of Dr. Howard H. Hiatt, dean of the University's School of Public Health. Dr. Hiatt is an experienced clinician and researcher, especially in the field of cancer studies, who served as Physician-in-Chief at the Beth Israel Hospital (one of Harvard's major teaching affiliates) before assuming his present position in 1972.

The new Center will operate under the overall supervision of a Steering Committee, made up of representatives of Harvard's many schools and departments as well as a number of health care experts from outside of the University. Thus the core staff of the Center can call upon Harvard's immense resources in medicine, health care research, law, policy making, the basic sciences, and the humanities; for its clinical studies, the Center will turn to the first-rate resources of the greater Boston medical community.

The Fund, the Robert Wood Johnson Foundation, and other sources this year made grants to the Center for support, during its initial period, of four major activities:

(1) *Inventory and analysis of crucial clinical procedures.* Each year, the Center will investigate five existing—or proposed—medical, surgical, or other clinical procedures that have or could have a major and controversial impact upon our health care system. The focus will be not only upon clinical procedures that require additional, purely medical, validation, but also upon the relative costs and benefits of alternative approaches to certain medical problems. The result would be clearer criteria for judging clinical procedures in the broadest context: medical, ethical, legal, and social. Areas that require additional clinical evaluation will be identified.

(2) *Analysis of procedures used in clinical trials and other human experimentation.* The Center will examine the multitude of conditions and controls under which experiments are conducted upon human beings. The primary instrument of this investigation—a regular Seminar on Human Experimentation —will bring the multidisciplinary resources of the University to bear, first, upon the need to develop clearer guidelines for human experimentation and, second, the need for more effective ways to collect essential clinical data.

(3) *Study of the spread and acceptance, and later replace-*

ment, of new clinical procedures. The Center will review in-depth case histories of new clinical procedures and, on this basis, identify and implement alternative methods of effectively disseminating the Center's own recommendations. In addition, the Center will explore the role that private and governmental policy-making bodies can play in this process, where appropriate.

(4) *Education.* The Center will conduct a limited program to educate medical students and practicing clinicians in the statistical and analytic disciplines and techniques essential to proper evaluation of clinical procedures.

Harvard University

The Fund made a final, one-year grant to Harvard University to support the work of Professor Gerald Holton, whom the Fund has assisted since 1972 in a major, interdisciplinary program to study the public's attitude toward science, including medicine.

Through faculty-student seminars, independent courses in Boston-area colleges, conferences, and publications, the project has addressed such issues as: the way in which scientific and technological progress is viewed by the public (including the more recent skepticism, by "ecologists," of the benefits of technology), the attitudes of college students toward reason, science, and technology (including the major influence of the so-called "counter-culture" on such attitudes), and the way in which scientific progress, and the new roles of scientists, are reflected in public policy. The project has also explored avenues by which the public can arrive at a more realistic understanding of the role of science.

During the past year—the project's second—Dr. Holton's group has pursued four major activities:

(1) An integrated series of fourteen essays has been brought to completion and will make up the summer 1974 issue of *Daedalus*, the journal of the American Academy of Arts and Sciences. This special issue, under the title *Science Between Its Clients and Its Critics*, will constitute a major public report on the Harvard project. As is usual with special issues of *Daedalus*, the volume will subsequently be expanded and supplemented for publication as a book.

(2) As a result of inter-institutional seminars during the first year of the project, Dr. Holton's group was able this year to conduct four experimental seminars for students in the sciences and humanities:

—A seminar on the assimilation of scientific theory and experimental data in the development of public policy was conducted for students from Harvard University, Simmons College, and the Massachusetts Institute of Technology.

—A seminar on the structure of medical education and the way it prepares doctors for their professional roles was conducted for medical and premedical students by Dr. John Stoeckle and his clinical staff from the Massachusetts General Hospital.

—A faculty-student seminar on Science, Technology, and Culture Change, an offshoot of the Boston-area seminars, was offered at Hampshire College for students and faculty from the University of Massachusetts, Smith College, Mt. Holyoke, Amherst, and Hampshire College.

—A freshman seminar at Harvard University, for premedical students and others, was conducted by William Blanpied, Executive Administrator of the Harvard Project; it dealt with the origins of scientific values.

(3) A major conference in the Boston area, under the auspices of the American Academy of Arts and Sciences, addressed "Perception and Reception of Science by Different Sectors of the American Public: 1800–1970." The papers prepared for the conference by senior scholars, who reported on their research

in this area, will be included in the book that will follow publication of the special *Daedalus* issue.

(4) A quarterly "Newsletter on the Public Conceptions of Science" has brought the findings of the Harvard project to approximately 1,000 subscribers—and has helped the Harvard team to develop contact with other researchers across the country who are working in the field of public conceptions of science.

In its third and final year, the project will focus upon ethics and human values, especially as they relate to science and medicine, and will identify and study the ethical codes and choices that guide scientists in their work. Researchers involved in the Harvard project have found that issues in this area are of increasing concern to broad segments not only of the professions, but of the public as well. Both the National Science Foundation and the National Council for the Humanities, for example, have established advisory councils to provide policy guidance and advice in this field.

Harvard project researchers believe that the long-term concern of medicine with ethical issues—and the distinctly ethical demands on the practicing physician—could provide a model for other sciences that, because they do not deal directly with the public, in many cases have not considered ethical issues to be of immediate concern.

Professor Holton has pursued the Harvard project in collaboration with colleagues from Harvard's History of Science Department and Education Department and from science and philosophy departments at MIT and Boston University. In addition to Fund support, the project has received an annual grant from the National Science Foundation, under the latter's Public Understanding of Science Program.

Other Grants in Health Policy

(1) The Fund made a grant to *The Conference Board, Inc.* (formerly the National Industrial Conference Board) for partial support of a conference on the role of industry in health care. At present, deficiencies in the health care system are assuming an ever-greater significance for employers in all fields, who pay an increasing portion of the health service bill through insurance benefit premiums and welfare funds; in addition, many larger enterprises directly provide health services through their own medical departments. The Board's conference, held on April 23, brought together some 200 participants from senior and middle management—plus a wide selection of representatives from the health care community—to exchange information and ideas on three crucial business roles in health: public policy advocacy, community activities, and employee health care programs. The conference was based, in part, upon a recently-completed two-year study of industry roles in health care—initiated by The Conference Board in 1971 with the support of the Fund and other foundations. The Conference Board itself is a research institution established to identify, study, and publicize problems of common concern to the managements of many different enterprises. Its membership comprises some 4,000 businesses throughout the U.S. and Canada; it maintains a full-time staff of more than 250 professionals and backup personnel. Support for the conference was also contributed by the Rockefeller Brothers Fund.

(2) A grant was made for partial support of Dr. Robert Q. Marston during one year as a Visiting Scholar at the *University of Virginia.* Dr. Marston moved to the post from his position as Director of the National Institutes of Health. He worked not only in the University's Health

Sciences Center, but also in its schools of Law, Public Policy, Business, and Governmental Relations. His long tenure at the top of the government health care structure enabled him to bring unusual experience and practical expertise to the University's major program of teaching and research in policy making for the health care field.

(3) The Fund made two grants to the *American Arbitration Association* for its demonstration project in the testing and evaluation of conflict prevention and resolution procedures in the health field. During the past year, with support from the Fund, the Robert Wood Johnson Foundation, and the Henry J. Kaiser Family Foundation, two major goals have been pursued. First, the Association has sought to determine whether there is a practical role in the health care field for the specialized services of the Association's National Center for Dispute Settlement and, second, what specific procedures could be effective in meeting problems that affect health care delivery. As a major activity of the Association's Research Institute, under President Donald B. Straus, the project has proceeded with the identification and installation of comprehensive dispute management systems in three different health care agencies. During the next two years, the project will further develop these key demonstration models—including the training of the relevant consumer groups, boards, and staff—and will complete its collection of data. When evaluation of the demonstration projects is complete, a summary of findings and specific procedures will be embodied in a manual. The Fund's second grant this year enabled the Association to obtain, for the summer months, the services of a Health Services Associate to work under the supervision of Dr. George Silver in studying areas in the health field that require dispute prevention and settlement procedures. The staff member selected was

Dr. Jeffrey A. Brown, a physician with degrees and experience in law and public health, as well as in medicine.

(4) The Fund made a grant to the *Nutrition Foundation, Inc.*, to maintain the work of the Citizens Commission on Science, Law, and the Food Supply, which is conducting a major study of the scientific, legal and social factors involved in decision-making relative to the safety, availability and nutritional values of the food supply. The Commission was organized early in 1973 in response to the expressed concern of the Commissioner of the U.S. Food and Drug Administration. Until now, support for the Commission has come from the Josiah Macy, Jr. Foundation, The Rockefeller Foundation, and the Nutrition Foundation itself. Support for completion of the study is being sought for the Food and Drug Administration. The Commission's twelve committees, and related subcommittees and study groups, are nearing completion of their reports and it is hoped that the Commission's final report can be made public at an international symposium early in 1975.

Social Medicine

Roosevelt Hospital of New York

The Fund has been aware for some time of the difficulties entailed in consumer health education. Most efforts have been diffuse and unstructured and, though some have started well, they have seldom become permanent, functioning components of hospital health care systems. Still, there remains an indisputable need for such regular, hospital-based education, in view of the startling percentage of health problems that are caused or affected by the life styles of patients and their families. Every survey of

the public's knowledge of basic health facts has revealed surprising and disheartening ignorance of fundamental aspects of health maintenance.

The Fund made a major, three-year grant to the Roosevelt Hospital, a teaching affiliate of the Columbia University College of Physicians and Surgeons, for a model program of consumer health education, to be conducted and evaluated in cooperation with the Institute of Public Affairs and the United Hospital Fund of New York.

The experiment represents the first concerted effort to apply the recommendations of the President's Commission on Health Education, which recently studied efforts at health education of patients and their families in hospital and other settings around the country. Despite the known correlation between a patient's life style and his health—and despite the modest cost of preventive care in contrast to sick care—the Commission discovered that ninety-four percent of all funds spent on personal health services went for sick care; less than one percent went for "consumer" health education. Indeed, only a handful of hospitals are carrying on consumer health education programs that go beyond routine distribution of information.

The Commission's Director, Mr. Victor Weingarten, was instrumental in developing and refining the Roosevelt plan and the Institute of Public Affairs, of which Mr. Weingarten is President, will help to direct and staff the plan.

Roosevelt Hospital is a 595-bed, voluntary, nonprofit institution. Since 1967, it has operated a Children and Youth Clinic that offers comprehensive health care to some 15,000 young people in Manhattan's West Midtown section—an area where approximately one-half of all families have Spanish surnames.

The Clinic functions through integrated medical and

nursing teams that are responsible for certain patients and their follow-up care. The Clinic program has been well accepted by the West Midtown community where, with the cooperation of the Board of Education, it has established a close liaison with the public schools.

Because the President's Commission and the Clinic staff are convinced that children are a promising target for health education, and can even help to educate the older generation where a language barrier exists, the health education program will focus on the child and youth population of the Clinic. The Clinic staff has identified distinct health education problems that are typical of the Clinic's catchment area: *e.g.*, lack of educational materials specifically tailored to families of Puerto Rican origin, misunderstanding of the role of such health practitioners as the psychiatrist, and failure to understand the Clinic's appointment system.

The core of the new program will be a consumer health education team, which will work hand-in-hand with the Clinic's medical teams to add an effective health education regimen to existing acute and preventive care services. The crux of the effort will be motivation of the patient to change his health habits and life style in ways more conducive to health—an approach that goes beyond simple distribution of information.

Under this plan, an "educational prescription," will be prepared for each patient by the health education staff in consultation with the patient's family and the medical staff of the Clinic. The prescription will be based upon a thorough medical and social diagnosis and will offer a series of workable, medically sound steps by which the patient can shoulder increased responsibility for some aspects of his own and perhaps his family's health care needs. Where appropriate, such prescriptions will be

adapted to the ingrained cultural and ethnic patterns that already shape the patient's life style. Reinforcing this basic, highly-individualized approach will be health-oriented cassettes, pamphlets, programmed instruction, and closed circuit TV, available to patients in a variety of hospital, clinic, school, and other settings.

The national influence of the Roosevelt model will depend, in large measure, upon a reliable evaluation of its impact on the cost and effectiveness of patient care. Thus the Hospital's biostatistical unit will fully monitor the target population of 250 Clinic patients who, along with their families, will receive the attention of the health education team. Comparable records will be maintained on a random sample of 250 Clinic patients and their families, who will continue to receive full Clinic services, but will not participate in the health education plan and will thus serve as a "control" population.

If tangible financial benefits of consumer health education can be demonstrated in this way, there is an excellent chance that reimbursement of hospitals for such efforts will be stipulated in Federal health care legislation now being planned. Private third-party payers, such as Blue Cross of New York, have also expressed interest in this concept; and similar health education programs could be introduced into other New York hospitals through the United Hospital Fund, a financial contributor to and sponsor of the plan.

Children's Television Workshop

The Fund joined several other foundations, and a number of corporations, in providing support for the Children's Television Workshop, which is now producing a major television series on health and health care problems.

The weekly, hour-long programs will present health information to American families and will attempt to alter their attitudes and behavior in ways conducive to better health—using the unique combination of entertainment and education by which the Workshop's spectacularly-successful *Sesame Street* and *The Electric Company* helped to boost the reading and math skills of millions of young children.

During the past two years, with earlier grants from the Fund and other foundations, the Workshop has completed the following extensive preparations for the full-scale production now to begin:

(1) Hundreds of medical and health care professionals throughout the country have been interviewed for their advice on the content and presentation of the series; the Workshop is assured of their cooperation in maintaining the high scientific and medical standards of the programs.

(2) Thirty key topics, of high priority for public health education, have been identified and extensively researched; each has been selected not only for its overall importance, but for its susceptibility to self-help and preventive behavior by the target audience of the series.

(3) Several dozen film sequences have been produced to test various approaches to effective communication of health issues; in each case, the Workshop's full-time research staff of social scientists has presented these experimental sequences to representative target audiences and has carefully studied their reactions. Consultants from medical and health fields have studied the test films and offered detailed recommendations for improvement.

During this development and testing phase, the Workshop has recruited and organized a special staff to carry the series through actual production: a senior producer

with top credentials in television film-making, two social scientists with experience in the health communications field to direct full-time research on the series, and the other creative and technical staff required to sustain a full-length television series. This special staff will have the support of the Workshop's regular staff of more than 200 creative writers, researchers, production personnel, and promotion men, as well as its nationwide network of offices to build audiences and distribute follow-up material. The Workshop also has assembled an official Advisory Council of medical educators, allied health professionals, health policy makers, and public health professionals who will have responsibility for the scientific and medical quality of the series.

In its final, fifteen-month phase—currently underway—the Workshop has moved forward with the production and testing of a full-length pilot film, which will be completed and tested on target audiences during July and August; production will then start on the twenty-six weekly shows that in combination with summer reruns will constitute the series. With a backlog of ten finished programs, the show should premiere in mid-November on approximately 230 stations of the Public Broadcasting System.

As in the case of *Sesame Street* and *The Electric Company*, the Workshop's Public Affairs Division has mapped out a promotion campaign to guarantee, as far as possible, a large initial audience for the series. The Workshop's Education Service Division is preparing a broad range of local community projects to support and extend the influence of the series. Finally, evaluation of success in reaching and influencing audiences, already standard procedure of the Workshop in the case of *Sesame Street* and

The Electric Company, will be brought to this new endeavor in a highly systematic way.

Health professionals have known for many years that changes in the attitudes, beliefs, and behavior of the American people could lead to an enormous improvement in their health, to prevention of illness and, as a result, to relief of the nation's strained health care system. At the same time, the problems of widespread public education, especially in the health field, have defied the talent of professionals both in medicine and in media-production and advertising; successful health education efforts, through television and other channels, have been the rare exception.

The Fund joined the Public Broadcasting Corporation, the Robert Wood Johnson Foundation, the Aetna Life and Casualty Company, the Exxon Corporation, and other sources in support of the current project in the belief that the Workshop—with its extensive research staff, testing experience, and track record of educational shows—will continue to take an unusually professional approach to development of the health series. And, although the nature of the experiment permits no guarantee of success, it is certain that wide public attention, extensive follow-up research, and the unusual input of dozens of top health professionals will produce an experiment of the very first importance in the field of public health education.

University of Miami School of Medicine

The University of Miami School of Medicine received a final two years of support for its Health Ecology Project (HEP), which was started in 1971 to cope with the health

beliefs and practices that prevent large segments of Miami's multi-ethnic population from obtaining proper medical care.

Southern U.S. and Caribbean Blacks, Cubans, Puerto Ricans and other Spanish-speaking peoples, American Indians, migrant farm workers, and the indigent aged already constitute more than half of Greater Miami's population; many such groups are concentrated around the University of Miami's growing medical campus. Their indigenous health traditions—including a reliance upon local "healers," herbal medicine, and spiritualists—compete strongly with their acceptance of modern medicine. Until now, this has impeded the School's ability to reach them through its hospitals, clinics, and health centers.

With the active support of the University's President, Dr. Henry King Stanford, and its Vice President for Medical Affairs and Dean of the School of Medicine, Dr. Emanuel M. Papper, the HEP has nearly completed its information-gathering phase. The Fund's renewed support this year was for analysis and evaluation of this information, for extensive ethnographic case studies, and for design and testing of health care models that will cope effectively with cultural barriers to scientific medical care.

The HEP team has defined four basic, interrelated goals for the final two years of the project:

(1) *A value orientation study* will be conducted to investigate the reasons for different patterns that ethnic groups reveal in utilization of health facilities, morbidity, disability, and so forth. This should provide crucial evidence of the way cultural values shape the response of different groups to the scientific medical system. On this basis, new care alternatives can be devised to accurately reflect their needs and perceptions.

(2) *An ethnographic study*, utilizing informal field-based observation and in-depth case studies, will supplement the for-

mal, survey-type work completed in the past two years. Research teams, placed in different sub-cultural settings, will try to identify: the range of types of "healers," theories of disease and therapy that influence various ethnic populations, the organization and administration of particular traditional health care systems, and the recruitment, training, and payment of various categories of "healers."

(3) *Computer programming and analysis* of all data collected thus far—and data to be collected in the next year—has already begun, but statistical analysis and interpretation of results is still preliminary. In fact, certain of the more complex and specialized questions posed for HEP's next phase can only be formulated on the basis of computer runs in progress. HEP has contracted for the services of a highly-trained health statistician to assist in this phase of the effort.

(4) *Service-based research and demonstration* will be the core of HEP's activity during the next two years and constitutes the project's "payoff." Using the community health center of the Department of Pediatrics, a major base of the project, the HEP team will identify and study those child health problems that are clearly and seriously affected by cultural health beliefs and traditions. On this basis, a new health care model will be designed to meet needs that are at present by-passed or mismanaged by the center's orthodox care program.

The Health Ecology Project is one of the first efforts by a medical center to cope with the indigenous health and healing traditions that flourish in America's inner-city areas and that limit the impact of neighborhood health centers. By developing and validating a systematic approach to identifying and understanding these traditions—and by incorporating this knowledge into medical education and patient care—the HEP can set a pattern for other medical centers that are responsible for large populations of Mexican-Americans, Puerto Ricans, and other special groups.

The Community Blood Council of Greater New York, Inc.

The Fund contributed to the campaign of The Community Blood Council—Greater New York's primary organization for collection and allocation of blood and for related research—to raise $4.5 million for construction, renovation, and development of its service, research, and teaching facilities.

New York physicians and civic leaders, aided by a grant from the Fund, organized the Council in 1961 to end the chaotic proliferation of blood-collection agencies in the New York area, to reduce the dangers of hepatitis and other diseases transmitted through blood transfusion, and to conduct a research program to increase knowledge of blood and its medical uses. The Council's Blood Center and its related facilities, opened in 1964 with Fund support, serve all of New York City, the fourteen southernmost counties of New York State, and the nine northernmost counties of New Jersey.

In 1968, the Council joined forces with the Greater New York Red Cross to form the Greater New York Blood Program, which was given a sizable grant by the Fund and is now the largest such program in the United States and one with an international reputation. Member organizations of the Council include, in addition to the Red Cross, a significant cross-section of the area's medical, hospital, charitable, and other health-related organizations.

In its April 1973 report, the National Heart and Lung Institute's Blood Resources and Transplantation Panel—established to study and make recommendations on national blood resources problems—clearly uses the Greater

New York Blood Program as the prototype for a proposed national system. This is but one reflection of the reputation achieved by the Community Blood Council in delivering a highly-specialized and crucial medical service that is indispensable to first-rate medical care in the New York area. Thus the Council's current campaign represents an opportunity to refine and extend a model for improvement of the nation's hard-pressed, often disorganized, effort to make maximal use of blood resources.

On the service side, major funds are needed by the Council to construct additional blood-donation centers within the New York-New Jersey metropolitan area; these centers should increase blood donations, provide maximum yield of perishable blood components, and facilitate emergency distribution of blood supplies within the Blood Program area. On the research side, funds are needed to construct or renovate laboratories for refinement of large-scale, highly-specialized processing of blood and blood derivatives, such as platelets, leukocytes, plasma, and gamma globulin. Other laboratory facilities are required for basic and applied research in automated blood grouping, detection of viruses in the blood, tissue typing and transplantation, and immunology and cell biology. Renovation of management and administrative facilities is also planned.

Although the Fund does not ordinarily contribute to capital construction, it was felt that, since there is little chance of government support for construction in the near future, the Council's major capital drive should receive a fair contribution from all elements of the Greater New York Community. The Fund's contribution will be allocated to priority capital projects identified by the Council's Board.

Hunterdon Medical Center, New Jersey

The Fund made two grants in support of a symposium, held at Princeton on October 6, 1973, to mark the twentieth anniversary of the Hunterdon Medical Center. The Center was one of the most notable experiments in health services supported by the Fund during the 1950s and Fund contributions, at all stages of the Center's development, have covered such needs as consultant services, planning and preparation of the Center, organization and development of comprehensive health services, building costs, and establishment of mental health programs. In aiming at the smooth coordination of all community and private medical and health care at a high level of performance, the Center went far beyond the scope of usual community hospital activities. Its example has been among the most widely-studied and influential in the nation.

The Roosevelt Hospital

The Fund and the Henry J. Kaiser Family Foundation made equal grants to enable Roosevelt and St. Luke's Hospitals to study the feasibility of establishing a cooperative, prepaid health care program to serve the west side of New York City. Special attention will be paid to the insights and reactions of hospital medical staff; the existing health care system, including its role in ambulatory care, also will be examined, as will the wider relationship of the two hospitals to their medical school affiliate, the Columbia University College of Physicians and Surgeons. If this initial, six-month study is successful, the two hospitals can move to define more specifically the requirements of a cooperative system of prepaid group practice.

Educational Facilities Laboratories, Inc. (EFL)

In 1971, and again in 1972, the Fund joined with Educational Facilities Laboratories, Inc. in supporting the development of a permanent, national organization to stimulate and coordinate architectural experiments in the health care field. Planning and development of this organization—to be called Health Facilities Research, Inc.—was undertaken by the American Institute of Architects, with the cooperation of health care consultants. .

Although the need for such an organization is clear, it has not been possible to assemble the general support required to launch Health Facilities Research, Inc. as planned. In the belief that a "track record" might assist in attracting long-term support, the Educational Facilities Laboratories has initiated a specific project in health facilities planning, to be undertaken by a Task Force on Health Facilities Research. Under the direction of EFL, the Task Force has begun a one-year study of ambulatory care facilities, in an attempt to define the concepts, goals, and standards required for an improved ambulatory care environment—and to develop the basic design concepts needed to create such facilities.

The project comes at a crucial time, when ambulatory care centers are an increasingly important component of the health care system and are perhaps the key to delivering the primary care that is now unavailable or in scarce supply in many areas. Such ambulatory care is at present delivered in many settings—the hospital outpatient clinic, the private practitioner's office, the family health center. It is certain that the enormous sums to be expended on such facilities during the next few years could be directed more efficiently if a systematic, factual body of information on ambulatory care facilities were available.

The Fund joined with the Robert Wood Johnson Foundation and Educational Facilities Laboratories in meeting the budget for the study project.

University of Washington School of Medicine

A renewed grant was made to the national "Drug Spotlight Program," which is designed to help hospitals to improve their use of drugs and to decrease the incidence of adverse drug reactions. The program was started last year under the leadership of Dr. George N. Aagaard, Professor of Medicine and Head of Clinical Pharmacology at the University of Washington School of Medicine. A National Advisory Committee, with representatives from most major medical, nursing, and hospital associations, has now been formed. Widely-misused or abused drugs will be successively "spotlighted" by the program for periods of three months, during which the program's cooperating medical and nursing journals will feature extensive information on the values—and dangers—inherent in the particular drug. This strategy may well make it possible to exploit the fact that the Joint Commission on Accreditation of Hospitals can require each hospital to maintain an active "Pharmacy and Therapeutics Committee" to set standards for employment of drugs and to investigate instances of adverse drug reaction. Such committees can serve as the nucleus of continuing, hospital-based education in drug therapy, using the educational materials disseminated by the Drug Spotlight Program. The need for such efforts is urgent. The extensive use of drugs in treating almost every modern medical problem, and the rapid-fire introduction of new drugs for a multiplicity of purposes, has created a permanent problem in the field of adverse drug reactions. Studies have indicated

that from ten to thirty percent of hospital patients suffer such reactions and that in some hospitals as many as 3.6 percent of deaths can be traced to this problem.

Education for the Allied Health Professions

Maternity Center Association/Downstate Medical Center

The Maternity Center Association—the nation's chief organization concerned with training of nurse-midwives—received renewed support for nurse-midwifery refresher courses at SUNY's Downstate Medical Center and at the Community Hospital of Springfield and Clark County, Ohio.

This support briefly extends an earlier, major Fund grant, made in 1970 to help the Association to initiate a series of medical center programs that would rapidly increase the number of nurse-midwives practicing throughout the country. These specialized nurses serve as assistants to obstetricians, or as part of hospital obstetrical teams, relieving hard-pressed physicians from routine or time-consuming tasks involved in prenatal, delivery, postpartum, and well-baby care. While highly-misleading statistics are often quoted, unfavorably contrasting infant mortality in the United States to that in industrialized European countries, it is nonetheless true that in certain inner-city and rural areas of this country maternal and child health care are seriously deficient.

Under the Fund's 1970 grant, the Maternity Center Association has assembled the staff needed to help universities, hospitals, and medical centers to bring the nation's many inactive midwives rapidly and economically back into practice. This sizable pool of trained, but not

practicing, midwives made concentration upon refresher courses seem most promising. In addition to a major appropriation for the Association's core staff, the Fund's 1970 grant also included sizable appropriations made directly to the Downstate Medical Center and the University of Mississippi Medical Center for refresher programs. Progress has been made by all three organizations.

(1) *The Maternity Center Association,* since 1971, has developed a core staff to serve as consultants to medical centers and universities that choose to start basic or refresher courses in nurse-midwifery. To date, the Association has provided these on-site consulting services to fifty such institutions and, with the major involvement of the Federal Government since 1971, the nurse-midwifery idea has spread rapidly. Approximately twenty new programs have been launched at major universities and medical centers during the past three years; the United States Army and Air Force have initiated their own nurse-midwifery services and are now setting up basic educational programs. More generally, the Association has played a much-needed role in disseminating public information about nurse-midwifery and available training programs.

(2) *Downstate Medical Center* has successfully conducted a program for nurse-midwives at Kings County Hospital and the Jewish Hospital of Brooklyn. Almost sixty nurse-midwives have now graduated; the stress in their training has been upon service in inner-city areas.

(3) *The University of Mississippi Medical Center* launched a program for nurse-midwives and trained seventeen of them before the interruption of its clinical training facilities forced a halt. The program stressed service in rural areas.

Wider progress of the midwifery concept is reflected in the extent to which medical centers are including nurse-midwifery services in their regular budgets; in the demand for nurse-midwives, which now far outstrips the

supply; and in the growing use of midwives in obstetrical teams.

The small renewal grant made by the Fund this year extends two nurse-midwifery programs in which the Maternity Center Association is involved. Scholarship funds were included, also, to enable the association to assist ten students who have been recruited for the new, three-and-a-half month nurse-midwifery session now beginning at Downstate Medical Center.

Faculty-Student Association, Downstate Medical Center

The Fund made a grant to the Faculty-Student Association of Downstate Medical Center, New York, for a conference on the allied health professions, held as a three-day "retreat" from April 19 to 21. The conference brought together some thirty participants—including students and faculty from Downstate's College of Health Related Professions, faculty from the College of Medicine, and outside consultants—to explore and define a common core or theme around which to integrate Downstate's nine programs in paraprofessional education. These nine programs, within the College of Health Related Professions, include Clinical and Community Dietetics, Laboratory Animal Science, Medical Computer Science, Medical Record Administration, Medical Technology, Occupational Therapy, Physical Therapy, Radiologic Sciences and Technology, and Nurse-Midwifery. The programs currently graduate a total of 100 allied health professionals each year, and this number is increasing. In addition, the College hopes to develop new programs for Physician Associates and Inhalation Therapists.

Stanford University School of Medicine

The Fund renewed its support to the Stanford University School of Medicine for its long-term, University-wide program on the causes and prevention of aggression and violence in modern society. The program was started in 1971 with a major Fund grant.

Under that grant, a Laboratory of Stress and Conflict has been established within the School of Medicine's Department of Psychiatry; the Laboratory's facilities and core staff, under Dr. David A. Hamburg, serve to focus and integrate teaching, research, and service activities throughout the University that relate to the broad subject of violent behavior and its control.

The aim is to direct the full scholarly resources of the biological, social, and behavioral sciences to development of a base of data and understanding upon which strategies for the prevention and control of violence can be built—a goal made urgent by the alarming increase in domestic and worldwide violence.

Programs initiated by the Laboratory during its first two-and-a-half years have stressed research, reflecting the need to generate the data and understanding essential to effective teaching and service. Increasingly, however, these latter two components have expanded and will be a growing concern during the next three years.

(A) *Research.* Laboratory scholars have directed significant effort to the problems of adolescence, a crucial period in the life cycle and one that has been surprisingly neglected by medicine. There is urgent need, today, to understand the prevalence of profoundly and pervasively hostile attitudes, the extraordinary spread of drug abuse, and the upsurge of violence among adolescents.

The influence of major hormonal changes in adolescence is the focus of a long-range study of chimpanzees in their natural habitat. Under the renowned ethnologist, Dr. Jane Goodall—now a core Laboratory member—behavioral studies of these advanced primates is concluding its thirteenth year in the Gombe Stream Reserve, Tanzania. In the next three years, these behavioral observations will be thoroughly and systematically related to hormonal and other biochemical changes among adolescent male chimpanzees—a study made possible by the Outdoor Primate Facility that is now being constructed at Stanford.

In cooperation with the Palo Alto School District, the Laboratory has evolved a self-sustaining Peer Counseling Program that can function in schools with minimum involvement of mental health professionals. Under this program, selected teachers and administrators are trained, through a curriculum developed by the Laboratory, to prepare mature students to serve as "peer counselors" who, in carefully-defined and monitored settings, can guide and help their fellow students. Through this program, the Laboratory has begun to identify the attributes of adults who are successful in reaching young people; in more practical terms, 150 students trained in the program are actually helping to deal with the attitudes, frustrations, and confusions that contribute to hostility and violence among adolescents. In a closely-related program, experienced peer counselors are being further trained as drug counselors who, with full involvement of their parents and supervision of health professionals, can provide a crucial test of the premise that peer influence is a major factor in the development—and cessation—of drug abuse among adolescents.

The question of drug abuse among adolescents is, itself, the subject of an additional, major study by Labora-

tory scholars. This study is designed to generate reliable, detailed information about the patterns and extent of drug abuse in adolescents of varying age, sex, race, and family stability. Ultimately, this data will provide a base for effective preventive intervention, which the Laboratory is now convinced must be tailored and targeted to specific populations, rather than to adolescents treated as a single group and assumed to have the same premises, needs, and backgrounds.

A clinic on Alcohol and Violence, established within the Laboratory in September of 1972, is experimenting with the comprehensive, multidisciplinary study of alcoholic patients who display proneness to violence.

(B) *Education.* The activities of the Laboratory provide an array of research and clinical settings in which graduate and postdoctoral students can become involved in the study and treatment of violent behavior. In addition, however, the Laboratory has inaugurated formal teaching activities on three levels:

First, Drs. Hamburg and Goodall have created a course —on the evolution of aggressive behavior and conflict in modern society—that is a required part of Stanford's interdisciplinary major in Human Biology. The Laboratory also conducts two more advanced courses as part of this program. In all, more than 500 undergraduates a year are introduced in this way to concepts and principles in the field of violence and its causes.

Second, the Laboratory has introduced into its Psychiatric Residency Program an increased awareness and focus on stress, conflict, and violence in the psychotherapeutic setting. Psychiatric residents serve actively in the Alcohol Violence Clinic.

Third, substantial material on aggression, stress, and violence has been incorporated into courses for medical

students. A new course has been created for medical students, also, that deals with drug-related hostility, adolescent problems, paranoid aspects of medical disorders, and treatment of violent offenders in institutional settings.

Educational activities at the high school level have been mentioned already. In a different arena, the Laboratory's scholars have become involved in international education through extensive publication in UNESCO journals and organization of two UNESCO conferences on human aggressiveness. In the next phase, Laboratory scholars will become involved in World Health Organization activities in this and related areas.

The Fund's renewed three-year grant was primarily for support of the core staff of the Laboratory of Stress and Conflict. This independent support of faculty time is essential to ensure their major commitment to the Laboratory's work; this, in turn, provides a stable base for the efforts of other scholars at Stanford who have initiated related studies and programs.

The Laboratory and its related scholars have been successful in finding long-term funding for many projects initiated with Fund support. Among these are the Alcoholism Violence Clinic, now supported by the National Institute of Alcoholism and Alcohol Abuse; the Peer Counseling Program, now supported by the National Institute of Mental Health; and the bio-behavioral study of primates, now supported by the Grant Foundation and NIMH.

The Population Council

The Fund contributed support to The Population Council for printing and distribution of a self-contained lecture series on the clinical and social aspects of population and

family planning, for use primarily in medical, nursing, and public health schools in developing countries. The availability of these high-quality materials should encourage such schools to fashion new or more effective courses to prepare medical and allied health professionals to attack crucial population problems.

Experienced observers agree that at present this teaching job is being done neither well enough nor on a wide enough scale. Effective courses in the population field require an interdisciplinary background in such fields as physiology, demography, clinic management, and public health. In many countries, teachers of Obstetrics and Gynecology—the logical instructors for a population course—are busy providing scarce clinical services and cannot spare time for the extensive research entailed in preparing an effective presentation of population issues. Nor are the materials always available for such research.

The concept of a prepackaged series of lectures on major aspects of the population problem—ready for use by the typical medical or nursing school teacher—was originated by the Committee on the Medical Aspects of Human Reproduction, a standing committee of the seventy-nation International Federation of Gynecologists and Obstetricians (FIGO). The *Teacher's Manual*, as it is called, will be distributed under joint sponsorship of The Population Council and FIGO.

The *Manual* consists of three major sections: reproductive physiology (including medical aspects of contraception), elementary demography, and family planning (including clinic management). Five chapters are devoted to each subject, with an extensive set of coordinated slides for classroom use. Chapters were drafted by specialists in each field, including many from the appropriate depart-

ments and institutes of the Columbia University College of Physicians and Surgeons and the Johns Hopkins University School of Medicine. Such chapters were evaluated and examined by consultants, then edited to achieve the level of presentation likely to be most effective for the intended audience.

The lecture series is designed to be unusually flexible, with chapters and sections that permit easy expansion and condensation to meet the needs of individual teachers, without sacrificing the core of vital information that must be conveyed by the series. The entire course can be delivered by an obstetrician-gynecologist or sections can be delivered, in turn, by a physiologist, obstetrician-gynecologist, sociologist, and public health expert.

The text of the *Teacher's Manual* was developed and refined under a general grant from the Ford Foundation to the Council's "Augmented Information Service." The Fund's grant will enable the Council to print 2,000 sets of the *Manual*—enough to distribute to some 500 medical, nursing, and public health schools in the developing world. It is hoped that three sets of the *Manual* can be sent to each school—one for the library, one for general use and self-education in the Department of Obstetrics and Gynecology, and one for the lecturer or team responsible for the population course.

University of California, San Francisco

The Human Sexuality Program of the San Francisco Medical Center was given support for the production and evaluation of audio-visual and other materials for use in its new Sex Advisory and Counseling Unit. If successful, however, these carefully-planned materials could comple-

ment the professional counseling services of sex counselors across the country by increasing the extent to which couples can contribute to resolution of their own sexual problems; this could in turn begin to offset the marked scarcity of professional help in the area of sexual dysfunction and marriage problems.

The Medical Center's Human Sexuality Program developed out of a course in human sexuality for medical students, first given in 1967 and in 1969 made part of the Medical School's required curriculum. The Program is under Dr. Herbert E. Vandervoort, a psychiatrist, who is also director of the Medical School's training program in Family Medicine. With eight years of experience in educating medical students, the Human Sexuality Program in 1972 established the Sex Advisory and Counseling Unit which, during its first year of operation, treated hundreds of couples referred by physicians and hospitals in the San Francisco area. The Unit has also started a variety of in-practice training programs, ranging from specialized education for M.D. and Ph.D. students to preparation of paramedical personnel, such as the family planning worker, to serve as assistants in sex counseling. In addition, the Unit—under contract from the Agency for International Development (A.I.D.)—is training medical faculty from abroad in new methods of sex counseling and in procedures for educating medical students in human sexuality. Another highly-specialized and desperately needed component of the Unit's work is in sex education for the blind and other seriously handicapped persons.

The Human Sexuality Program, and more recently the Sex Advisory and Counseling Unit, have established regular contact with community agencies throughout the San

Francisco area and with universities and interested religious organizations across the country. From these and other groups, the Clinic has had a steady stream of requests for consultation and assistance in training sex counselors, assistance in developing effective counseling programs, and consultation in setting up new clinics for treatment of marriage problems and, specifically, sexual dysfunction. In response to this demand, Dr. Vandervoort and his colleagues seek to establish a permanent capability, within the Unit's staff, for developing and testing of a large body of printed, audio-visual, and graphic materials that will support and extend the efforts of the nation's sex and marriage counselors. The focus of these materials will be the ability of many patients to contribute increasingly to their own sexual therapy, with regular but limited guidance from a professional counselor or physician.

As the materials are tested and refined, they should (1) make possible the use, in some settings, of sex counselors trained in a less elaborate way than at present and, (2) increased time for all professional counselors to devote to the many patients who will continue to require maximum professional guidance.

While the Human Sexuality Program has been successful in raising funds for its core operation, outside support was needed for development of staff able to focus upon creation of the self-help materials. A Project Director, educational specialist, media specialist, and clerk-typist will be added to the unit's staff, with defined portions of their time set aside for the media program. The Fund's one-year grant—to ensure an immediate and successful start on production of the proposed materials—was made on a matching basis.

Planned Parenthood-World Population

Planned Parenthood-World Population was given renewed support for its Center for Family Planning Program Development, a special, semi-autonomous division that provides technical assistance, policy development, and public information in the field of fertility services.

The Center was set up in New York City in 1968 and has been pivotal to the emergence, in recent years, of a network of highly-functional family planning clinics for low-income women. It has grown with widespread public and private support, including major grants from the Fund in 1969 and again in 1973.

The value of this focused national effort to influence changes in domestic policy and programs in the family planning field has been decisively demonstrated in the six years of the Center's existence:

—Federal funds for family planning services have increased to $150 million annually.

—The number of persons served by organized family planning programs has reached 3.2 million, almost without exception from the intended population of families with low and marginal incomes.

—The provision of family planning services is now a regular service in more than 3,250 hospitals, health departments, and voluntary health agencies.

Indeed, between 1966 and 1971 the birth and fertility rates of the poorest segments of the American population dropped some twenty-two percent, compared with a drop of nineteen percent among those couples with higher incomes. In the same period, and especially since 1968, major legislation has been enacted, establishing support of family planning services as a national policy.

With an interim grant from the Fund, and with the help of other foundations, the Center last year undertook two major, independent appraisals of its record and structure and, more importantly, of the objectives and priorities it should pursue in the next five years. These studies —one by the Center's National Advisory Council and one by independent Ford Foundation consultants—fully documented the Center's vital role in the development of adequate family planning programs in the U.S., in providing policy-development services to government programs, and in maintaining an effective communications network among health agencies in the family planning field. At the same time, however, these studies pointed to some three to four million persons with low or marginal incomes who still lack access to modern family planning services. The clear danger is that, with fertility in the U.S. at approximately the replacement level, the nation's sense of crisis will lessen and advances will be reversed, as they have been in some other countries that achieved initial progress in population control.

The Long-Range Planning Committee of the Center's National Advisory Council—in a program for the Center's future that was adopted by the full Council in October of 1973—recommended three broad priorities for the Center during the next five years:

> (1) support existing public family planning programs and consolidate them into permanent systems of finance, administration, and service delivery; such continuing efforts are made crucial by the recent uncertainties in Federal support for family planning services;
>
> (2) conduct research, analysis, and development aimed at achieving universal accessibility and availability of voluntary fertility control services to Americans in all socio-economic groups; special attention must be given to medically-sound

abortion, sterilization, and contraceptive services, which should be integrated into the nation's normal mechanisms for financing and delivering health services; and

(3) expand research and analysis to assist in development of acceptable U.S. population growth and fertility policies—especially those outlined in the report of the Commission on Population Growth and the American Future.

This year's grant from the Fund, and grants from other foundations that have regularly supported the Center, will provide the core support needed to carry forward these and other tasks.

University of Pennsylvania School of Medicine

A grant was made to the University of Pennsylvania School of Medicine for partial support of a "National Conference on Sex Education in Medicine," sponsored by the University's Center for the Study of Sex Education in Medicine. The Center was established in 1968, with Fund support, as a national, scholarly resource to assist medical schools in training doctors in more effective management of the sexual problems of their patients; it received operating support from the Fund in 1970 and 1971. The Center's function has been to collect, evaluate, and disseminate information on sex education curricula at various medical schools and to assist schools in designing the most effective curricula and teaching materials. The five years of the Center's existence, under Dr. Harold Lief, have seen a tremendous proliferation of sex education programs, which are now in operation at some ninety medical schools; a substantial portion of this effort has been stimulated and directed by a series of regional conferences sponsored by the Center. However, the extremely rapid,

uneven, and largely unevaluated efforts in this area made a major, national conference on sex education in medicine timely; leading medical educators in the field expressed enthusiasm and support for the idea. The aim of the conference, held in April, was to assemble twenty-five such educators, outstanding leaders in the field of medical school sex education, to address a variety of crucial topics:

—The influence that various types of sex education curricula have had upon the behavior of physicians in patient care situations.

—Viable directions for sex education in the future and strategies for setting these directions through the development of teaching skills and design of medical school curricula.

—The changing role of the Center for the Study of Sex Education in Medicine, in view of the major developments in sex education during the five years of the Center's existence.

The result will be a monograph that should provide medical educators with a definitive overview of efforts at other institutions, ideas for curricular design based upon the latest research findings and evaluation of current programs, and a catalogue of the resources that are available to schools in developing or refining programs in sex education.

National Council on Alcoholism

The Fund made a grant to the National Council on Alcoholism for its Fifth Annual Medical-Scientific Conference, which this year addressed the "Medical Consequences of Alcoholism." During the three-day Conference —held from April 28 to 30 in Denver, Colorado—researchers and medical educators from many of the coun-

try's medical schools exchanged research findings on the transient and permanent pathological changes that are caused by alcoholism. While much research on these disease processes has been done in recent years, the results have not been compiled in any single volume; thus access by researchers has been inhibited in this field and especially in related fields. This year, because the International Council on Alcohol and Addictions designated the meeting as its Regional Conference, leading international experts on alcoholism added their contributions. The National Council is convinced that such conferences engender a greater commitment by medical educators and researchers to the study of alcoholism and thus generate a base of scientific data that the treatment of alcoholism as a disease has to some extent lacked. Conference proceedings are published in the Annals of the New York Academy of Sciences; in previous years, these Conference proceedings have been in considerable demand by medical schools and other institutions concerned with research and treatment in alcoholism.

International Medical Education

Pan American Federation of Associations of Medical Schools

The Fund made a final, three-year grant for core support of the executive and administrative offices of the Pan American Federation of Associations of Medical Schools, which has central headquarters in Bogotá, Colombia.

The Federation was founded in 1962 to strengthen the role of the health sciences and health professions in the social and economic development of Latin America, and

to foster cooperation among medical schools throughout the Americas in meeting their medical education requirements. Under its Executive Director, Dr. Jose F. Patiño, the Federation has pursued these goals and, at the same time, has moved rapidly to achieve an independent, self-sustaining financial position.

When the Federation was founded in Latin America in 1962, a total separation existed between institutions responsible for education of health personnel and those responsible for health care delivery and, at the government level, for health care planning. Within the medical schools and universities themselves, there was an urgent need for the integration of medical education with the biological sciences, the social and economic sciences, and other disciplines that bear upon health; the concept of community medicine remained largely undeveloped. Throughout Latin America, only Colombia had a medical school association with a permanent headquarters and staff.

During the past twelve years, the Federation has fostered the development of ten permanent, professional associations of medical schools on the national level, and the number of medical schools affiliated with the Federation—either directly or through these national associations—this year reached 282.

In Bogotá, the Federation has created a permanent executive and professional staff, with extensive administrative and auxiliary personnel, capable of providing program planning and consultation for medical schools throughout Latin America. It has provided continuing direct services in such areas as audio-visual teaching, library development and coordination, and publication and has raised funds to support seminars, fellowships, and special program activities throughout Latin America.

Under an official development plan adopted in 1967, the Federation has designed and implemented programs in a variety of crucial fields.

(1) Permanent information and record systems have been installed in medical schools throughout Latin America to provide data for program planning on all levels. With this base, and with the planned addition of information on other health professions, the Federation is moving to establish a Continental Data Bank, in Venezuela, to support joint planning of medical and health education across the Continent.

(2) Multinational centers have been established at leading universities to advance training in the biomedical sciences, with regular Federation study grants to Latin American medical faculty.

(3) For six years, the Federation has planned and conducted teaching and research in population, family planning, and maternal and child health, as the basis for an attack on Latin America's enormous population problem; the Federation administers post-graduate training grants in this field.

(4) Comprehensive programs for development of educational methodology in the health sciences are the major Federation concern, especially in the area of community medicine, where new medical school curricula are being established.

(5) Consultation and exchange in the field of clinical teaching has been organized in cooperation with the American College of Surgeons.

(6) The management capabilities of Latin American medical schools are being improved with the assistance of Federation specialists.

(7) The Federation is taking advantage of the major role that social security systems play in Latin American

health care delivery by encouraging cooperation between social security administrations and medical schools in several nations; a special, permanent Federation unit has been established in Mexico to direct these developments.

The Federation's programs, although varied, are without exception focused upon the most urgent problems of Latin American medical education and the crucial areas of interface between medical schools and the populations they serve; a key to the Federation's procedure is the utilization of its planning, coordinating, and fund-raising capabilities to stimulate the greatest possible initiative and activity on the national and local levels.

Although the Federation has created an excellent base of support—including seven major foundations and organizations in the U.S., four private organizations in Latin America, and nine national governments—the special role of the Fund since 1967 has been development of its central executive and administrative offices, which are responsible for overall program planning and coordination, technical assistance to member associations, and fund-raising activities for joint programs.

COMMONWEALTH FUND BOOK PROGRAM

The purpose of The Commonwealth Fund Book Program is to encourage and assist able medical scholars to prepare and publish monographs of distinction on major aspects of their thought and work. There are two program components: (1) subsidies for publication of manuscripts which, because of limited market or high production costs, might not otherwise reach publication; and (2) grants-in-aid in support of specific, well-defined book-writing projects.

Publication Subsidies

The Fund's program of publication subsidies is carried out principally under a long-standing cooperative arrangement with the Harvard University Press. Titles are published as Commonwealth Fund Books. To qualify for a subsidy and inclusion in the series, a manuscript must be accepted by the scholarly review board of the Press and must receive final approval by the Fund.

During the past year four new titles were approved for subsidy and inclusion in the series:

Analytic Psychotherapy versus Behavior Therapy, R. Bruce Sloane, M.D.

Equilibrium in Solutions; Surface and Colloid Chemistry, George Scatchard, Ph.D. [Annotated collection of Dr. Scatchard's papers, edited by I. Herbert Scheinberg, M.D.]

The Healing Hand; Man and Wound in Antiquity, Guido Majno, M.D.

The White Cell, Martin J. Cline, M.D.

Three books reached publication:

On Development, J. T. Bonner, Ph.D.

Aspects of Medical Care Administration, Avedis Donabedian, M.D.
Time-Limited Psychotherapy, James Mann, M.D.

It is anticipated that an additional three titles, previously approved, will be ready for publication within the next twelve months. These are:

Anatomy of the Guinea Pig, Alan L. Schiller, M.D., and Gale Cooper, M.D.
Claude Bernard and Animal Chemistry, Frederick L. Holmes, Ph.D.
Pathology of the Ear, Harold F. Schuknecht, M.D.

Grants-in-Aid

The second major aspect of The Commonwealth Fund Book Program, the grant-in-aid component, was initiated in 1968 to help meet on a selective basis the needs of authors who are preparing scholarly monographs in medicine and health. Awards are designed to meet the individual needs of each grantee and may include, for example, bibliographic assistance, essential travel, secretarial support and assistance for the preparation of illustrations and tabular material. Each applicant must prepare a detailed prospectus on his proposed monograph, including a definitive work program, together with documentation of his ability to undertake and complete the project. In making awards, the Fund regularly invokes a process of peer review by qualified experts in the appropriate scholarly field.

In fiscal 1974, nine awards were approved as follows:

HARRY F. DOWLING, M.D., Professor of Medicine, Emeritus, University of Illinois. A history of progress in the control of infectious diseases during the Twentieth Century.

MENARD M. GERTLER, M.D., Director, Cardiovascular Research, In-

stitute of Rehabilitation Medicine, N.Y.U. Medical Center; and Paul D. White, M.D. (deceased), Harvard Medical School. Updating and revision of *Coronary Heart Disease in Young Adults.*

Leonard D. Hamilton, D.M., Ph.D., Visiting Fellow, St. Catherine's College, Oxford, England. [1972: Division of Microbiology, Medical Research Center, Brookhaven National Laboratory, Upton, New York.] Critical quantitative assessment of technology-exacerbated hazards to life.

Zbigniew J. Lipowski, M.D., Professor of Psychiatry, Dartmouth Medical School, Hanover, N.H. Psychopathological complications of various types of physical illness.

Ronald P. Rubin, Ph.D., Associate Professor of Pharmacology, State University of New York, Downstate Medical Center. Calcium and the Secretory Process.

Alan L. Schiller, M.D., Teaching Fellow at Harvard Medical School, and Research Fellow in Pathology at Massachusetts General Hospital, and Gale Cooper, M.D., Harvard Medical School. Completion of monograph, *The Anatomy of the Guinea Pig.*

James A. Shannon, M.D., Professor of the Biomedical Sciences, and Special Assistant to the President, Rockefeller University. A treatment of the institutionalization of the biomedical sciences.

E. Brad Thompson, M.D., Head, Biochemistry of Gene Expression Section, Laboratory of Biochemistry, National Cancer Institute. Molecular Mechanisms of Glucocordicoid Action.

Elliott D. Weitzman, M.D., Chairman, Department of Neurology, Albert Einstein College of Medicine. Biological rhythms in man, with emphasis on the application of recent developments in this area to human disease.

HARKNESS FELLOWSHIPS
OF THE COMMONWEALTH FUND

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THE HARKNESS FELLOWSHIPS OF THE COMMONWEALTH FUND

Were it not for the break caused by World War II, the candidates chosen in 1974 would be the fiftieth group of Harkness Fellows. These awards, along with medical publications, are thus the Fund's two oldest continuing programs.

The origins of the Fellowships lay in the interest that Mr. Edward S. Harkness—the Fund's first president and one of its major benefactors—took in education and Anglo-American relations, the encouragement of the then Prince of Wales, and the twenty-year-old example of the Rhodes Scholarships. These various threads were incorporated in the 1925 inaugural resolution in which the Directors expressed their conviction that "reciprocal educational opportunities" for "young men and women of character and ability . . . , potentially leaders in their own country" were the most practicable way to promote a "unity of thought and purpose . . . of the two great English-speaking nations of the world."

At various times during the intervening years, the Fund has extended this original Anglo-American theme to other countries with which the United States also has close ties of history, institutions and values, and the awards are now available to candidates from eight Australasian and European countries as well as from the United Kingdom. The Fellowships have also been broadened to include non-university graduates in fields such as journalism and the fine arts. But throughout these changes of eligibility and geography the original, distinctive features of the Fellowships have been maintained:

—rigorous selection based on all-round "ambassadorial" and

leadership qualities as well as outstanding professional or academic achievement;

—encouragement of two years' tenure, but a minimum requirement of one year, including three months' general travel in the United States;

—wide latitude for each Fellow to propose an American program and base (not necessarily academic) best suited to his needs and interests;

—a level of emoluments sufficient to enable a Fellow fully to participate in American life;

—individual attention by Fund staff to each Fellow's particular situation, without impinging on his sense of personal responsibility and freedom.

Appointments in 1974

This year, thirty-eight awards were made to citizens of eight countries:

United Kingdom		17
Continental Europe		16
Belgium	3	
France	4*	
Germany	3	
Italy	3*	
The Netherlands	3	
Australasia		5
Australia	3	
New Zealand	2	
Total		38

Nearly thirty percent of the new Fellows, mainly in the sciences, will have a Ph.D. or equivalent before commencement of tenure. Among their intended fields of

*One French and one Italian appointee subsequently resigned, reducing the total number of Fellows to thirty-six.

study, psychology, especially social psychology, law and medical and life sciences are particularly well represented this year, accounting for sixty percent of the appointments. Slightly over ten percent of appointees are women which, as in past years, is approximately the same as the number of women applicants.

From the point of view of the Fund's interest in young people who are likely to play an active part in the public life and policy of their respective countries, it is useful to single out a few representative appointments: a young man who has rapidly achieved major editorial responsibility on the London *Economist*, a Belfast law student involved in a search for a solution to the problems of Ulster, a Belgian and a Dutch law student, each editor of the largest law review in his country, and a young woman who is expected to play a leading role in the reform of nursing education in New Zealand.

A full list of new Fellows, with biographical details and fields of study, begins on page 98.

The 1974 Fellowships Committees

Primary responsibility for the selection (in the U.K.) or nomination (in Australasia and Europe) of finalists has been vested by the Fund in eight Committees. Depending on the country, the reading of applications, the interviews of candidates, and the Committee sessions require the equivalent of three-to-six working days each year, and the interest, loyalty and skill with which this service is undertaken by these distinguished individuals is one measure of the esteem in which the Fellowships are held. The list of the forty-seven members of these eight committees begins on page 102.

Fellows Appointed in 1974

AUSTRALIA AND NEW ZEALAND

JOHN CHARLES BRUMLEY, Australia. Dip. Civil Engr., Royal Melbourne Institute of Technology; B.Sc., Candidate for M.Sc., University of Melbourne. Engineering Geologist, Geological Survey of Victoria. Engineering Geology, U.S. Geological Survey, Denver.

ANTHONY MARTIN EDWARDS, Australia. B.Sc., University of New South Wales; Ph.D., University of Adelaide. Post-doctoral Research Fellow, University of Queensland. Biochemistry, University of Wisconsin.

NIGEL LENDON, Australia. Dip. Fine Art, South Australian School of Art. Lecturer, School of Art and Design, Gippsland Institute of Advanced Education. Sculpture, Columbia University.

MARGARET HELEN PARKINSON, New Zealand. Registered General and Maternity Nurse, Waikato School of Nursing; Diploma of Nursing, New Zealand School of Advanced Nursing Studies; B.Soc. Sc., Waikato University. Charge Tutor, Rotorua Department of Nursing Education. Nursing, University of Washington (Seattle).

IAN JAMES WARRINGTON, New Zealand, B. Hort. Sc., M. Hort. Sc., Massey University. Staff Member, Plant Physiology Division, Department of Scientific and Industrial Research. Horticulture, University of California (Davis).

UNITED KINGDOM

NEIL REEVES BAKER, B.Sc., Candidate for Ph.D., University of Liverpool. Botany, University of California (San Diego).

DAVID BATES, M.A., M.B., B.Chir., University of Cambridge; M.R.C.P. First Assistant in Neurology, Royal Victoria Infirmary, Newcastle upon Tyne. Neurology, Mayo Medical School, Minnesota.

PAUL ADRIAN BARLOW BEECROFT, M.A., University of Oxford. Project

Developer, Ocean Transport & Trading Co., Ltd., London. Business Administration, Harvard University.

CHRISTOPHER FREDERIC CLARK, Candidate for B.A., University of Warwick. American History, Harvard University.

ALDWYN JOHN RICHARD COOPER, B.Sc., Candidate for Ph.D., and Demonstrator in Psychology, University of Bristol. Psychology, Stanford University.

MARGARET DEUCHAR, Candidate for B.A., University of Cambridge. Linguistics, Stanford University.

KEIR DOUGLAS ELAM, B.A., Candidate for Ph.D., University of London. Tutor, Westfield College, University of London. Linguistics, University of California (Los Angeles).

JULIA MARY CECILIA FARRER, Dip. Fine Art, University of London. Assistant Lecturer, Slade School of Fine Art, University of London. Printmaking, University of New Mexico.

GEORGE EDWARD GRIFFIN, B.Sc., Candidate for M.B., B.S., University of London; Candidate for Ph.D., University of Hull. Physiology, Harvard University.

JOHN JASPER GRIMOND, B.A., University of Oxford. Africa Correspondent and London Editor, European Section, *The Economist*. Political Science, Harvard University.

BARBARA JANE HEAL, B.A., Ph.D., University of Cambridge, Research Fellow, Newnham College, University of Cambridge. Philosophy, Princeton University.

JOHN CHRISTOPHER MCCRUDDEN, Candidate for LL.B., Queen's University, Belfast. Law, Yale University.

CHRISTOPHER JOHN RODRIGUES, B.A., University of Cambridge. Account Manager, Foster, Turner & Benson, Advertising, London. Business Administration, Harvard University.

CHRISTOPHER TADEUSZ CZESLAW SACHRAJDA, B.Sc., University of Sussex; Candidate for Ph.D., University of London. Physics, Stanford University.

DERRICK JOHN SETCHELL, B.D.S., University of London; L.D.S.R.C.S. (England). Assistant Lecturer/Hon. Registrar in Dental Surgery,

University College Hospital Medical School, University of London. Dentistry, University of Michigan.

TREVOR WIGHAM, B.Sc., Candidate for Ph.D., University of Sheffield. Zoology, University of California (Berkeley).

BRUCE WILLIAM DAVIDSON YARDLEY, B.Sc., University of Exeter; Candidate for Ph.D., University of Bristol. Geology, University of Washington (Seattle).

WESTERN EUROPE

CLAUS DIETER EISENBACH, Germany. Diplom-Chemiker, Dr. rer.nat., Universität Mainz. Assistent, Institut für Organische Chemie, Universität Mainz. Chemistry, University of Massachusetts.

HENRI-REMI CARDOEN GHESQUIERE, Belgium. Kandidaat in Germaanse Filologie, Licentiaat-Doctorandus in de Economie, Katholieke Universiteit Leuven. Economics, Yale University.

DIEGO MARCONI, Italy. Laurea in Filosofia, Università di Torino. Assistente Ordinario, Istituto di Filosofia, Università di Torino. Philosophy, University of Pittsburgh.

ROBERT JACQUES MARJOLIN, France. Diplôme de l'Institut d'Etudes Politiques, Paris; Licence d'Economie, Diplôme d'Etudes Supérieures d'Economie, Université de Paris I. Assistant, Institut d'Etudes Politiques, Paris. Economics, Harvard University.

DIRK COENRAAD MEERBURG, The Netherlands. Meester in Rechten, Rijksuniversiteit Utrecht. Stagiaire, Directory General of External Affairs of the European Economic Community, Brussels. Law, Harvard University.

JAN MEYERS, Belgium. Candidate for Licentiaat in de Rechten, Katholieke Universiteit Leuven; Candidate for Diplôme de la Faculté Internationale pour l'Enseignement du Droit Comparé. Editor-in-chief, *Jura Falconis*. Law, Harvard University.

FRANCOIS-RENE PICON, France. Licence ès Lettres, Université de Paris, Sorbonne; Diplôme du Centre de Formation à la Recherche Ethnologique, Paris; Candidate for Doctorat d'Etat, Université de

Paris. Research Anthropologist, Istituto Colombiano de Antropologia Bogotà. Anthropology, University of New Mexico.

Junte De Savornin Lohman, The Netherlands. Doctorandus in de Sociologie, Erasmus Universiteit Rotterdam. Urban Planning, University of North Carolina.

Ingo Michael Ascan Schwarz, Germany. Diplom in Informatik, Candidate for Ph.D., Universität Hamburg. Wissenschaftlicher Assistent, Wirtschaftsgeographische Institut, Universität Hamburg. Computer Science, Dartmouth College.

Silvana Sciarra, Italy. Laurea in Giurisprudenza, Università degli Studi di Bari. Assistente Ordinario, Institute of Labor Law and Industrial Relations, Facoltà di Giurisprudenza, Università degli Studi di Bari. Labor Law and Industrial Relations, University of California (Los Angeles).

Marinus Theodorus Maria Segers, The Netherlands. Doctorandus in de Algemene Literaturwetenschap, Candidate for Doctorate, Rijksuniversiteit Utrecht. Assistent, Katholieke Hogeschool Tilburg. Theory of Literature, Indiana University.

Silvere Simeant, France. Doctorat en Médecine, Dip. de Médecine Tropicale, Université de Paris; Dip. de Medecina Tropical, Universidade federal de Pernambuco, Brazil; Cert. de Maitrise de Statistiques Epidémiologiques, C.E.S. d'Hygiène et Action Sanitaire, Université de Paris. Public Health, Harvard University.

Fritz Heinz Strack, Germany. Candidate for Diplom in Psychologie, Universität Mannheim. Psychology, Stanford University.

Emmanuel Dominique Roger Van Obberghen, Belgium. Doctor in Genees- Heel- en Verloskunde, Candidate for Aggregatie van het Hoger Onderwijs, Vrije Universiteit Brussel. Assistent, Department of Internal Medicine and Research Fellow, Laboratory of Experimental Medicine, Vrije Universiteit Brussel. Medicine, National Institutes of Health, Bethesda, Maryland.

The 1974 Fellowships Committees

BRITISH COMMITTEE OF AWARD

PATRON: HER MAJESTY, QUEEN ELIZABETH II

PROFESSOR ARTHUR L. ARMITAGE
Chairman
Vice-Chancellor, University of Manchester

J. W. A. BURNET
Editor, The Economist

PROFESSOR SIR FREDERICK DAINTON, F.R.S.
Chairman, University Grants Committee

SIR PATRICK DEAN, G.C.M.G.
Former British Ambassador to the United States

PROFESSOR H. G. NICHOLAS
Rhodes Professor of American History and Institutions, University of Oxford

PROFESSOR SIR HUGH ROBSON
Vice-Chancellor, University of Sheffield

THE RT. HON. THE LORD TREND, P.C., G.C.B., C.V.O.
Rector, Lincoln College, University of Oxford

MRS. SHIRLEY WILLIAMS
Member of Parliament

NOMINATION COMMITTEE, AUSTRALIA

DR. J. MELVILLE, C.M.G.
Chairman
Director, Waite Agricultural Research Institute, Adelaide

R. H. CARNEGIE
Executive Director
Conzinc Riotinto of Australia Limited

Sir Ernest Coates, C.M.G.
Director of Finance for Victoria,
Department of the Treasury, Melbourne

Professor H. Carlyle Forster, O.B.E.
Emeritus Professor of Agriculture,
University of Melbourne

Professor Leonie Kramer
Professor of Australian Literature, University of Sydney

Dr. K. B. Myer, D.S.C.
Chairman, Myer Emporium Ltd., Melbourne

NOMINATION COMMITTEE, BELGIUM AND LUXEMBOURG

Minister Jean Rey
Chairman
Former President, Commission of the E.E.C.

Mr. J-L. Lamot
Staff Member, First National City Bank of Chicago, Brussels

Mrs. Isa Liebaers
Editor, Women's Section, Het Laatste Nieuws

Professor J. Lukaszewski
Rector, College of Europe, Bruges

Mr. Cecil De Strycker
Vice-Governor, Banque Nationale de Belgique

Mrs. Andre Deflandre-Moore
Secretary to the Committee
Executive Director, Commission for Educational Exchange between the United States, Belgium and Luxembourg

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NOMINATION COMMITTEE, FRANCE

M. Berard
Chairman
President of the Museum of Modern Art, Paris;
Hon. President of the Bank of Syria and the Lebanon;
and Director of the Bank of Paris and The Netherlands

G. Desgranges
Senior Literary Editor, Armand Colin

B. Goldschmidt
Director of International Relations,
Atomic Energy Commission, Paris

The Baroness Alix de Rothschild

M. Ullman
Editorial Board, L'Express, Paris

S. B. Weymuller
Secretary to the Committee
Mining Engineer, Ministry of Industry, Paris

NOMINATION COMMITTEE, GERMANY

Dr. Med. Lieselotte Bierich
Member of the Deutsch-Englishe-Gesellschaft

K. H. Knappstein
Former German Ambassador to the United States

Dr. T. von Randow
Science Editor, Die Zeit

Dr. H. C. Schroeder-Hohenwarth
Partner, Berliner Handelsgesellschaft Frankfurter Bank

Professor Dr. H. H. Höcker
Secretary to the Committee
Professor of Organic Chemistry, University of Mainz

NOMINATION COMMITTEE, ITALY

PROFESSOR A. GRAZIANI
Professor of Economics, University of Naples

PROFESSOR G. MAZZOCCHI
Professor of Economic Science, Catholic University of Milan

PROFESSOR M. PAGNINI
Professor of English Language and Literature, and Chairman, Institute of American Studies, University of Florence

P. RANCI-ORTIGOSA
Secretary to the Committee
Research Worker, Relazioni Soziali, Milan

NOMINATION COMMITTEE, THE NETHERLANDS

P. L. KOPPEN
Chairman
Partner, Raadgevend Bureau Berenschot N.V., Amsterdam

PROFESSOR H. DRION
Justice, The Supreme Court of The Netherlands

MRS. ANNY VAN DEN ELSHOUT
Senior Research Worker, University of Leiden

JEROME L. HELDRING
Secretary-General, Nederlands Genootschap voor Buitenlandse Zaken, The Hague

H. C. POSTHUMUS-MEYJES
Policy Planning Adviser, Ministry of Foreign Affairs, The Hague; and Professor of International Relations, Agricultural University, Wageningen

MRS. A. D. VAN DOOREN-ZOUTEWELLE
Secretary to the Committee

Director for Exchanges and Student Counseling,
Nederland-Amerika Instituut, Amsterdam

NOMINATION COMMITTEE, NEW ZEALAND

SIR MALCOLM BURNS, K.B.E.
Fund Representative and Chairman
Principal, Lincoln College, University of Canterbury

DR. COLIN MAIDEN
Vice-Chancellor, University of Auckland

K. B. O'BRIEN
Chairman, New Zealand Tariff and Development Board

J. W. RIDLEY, M.P.
Engineering Consultant

PROFESSOR DARCY WALKER
Professor of Physics, Victoria University of Wellington

OTHER APPROPRIATIONS

Institute of International Education

The advancement of international understanding through educational exchange opportunities for potential young leaders has been a consistent objective of the Fund since its earliest years. While this objective has been expressed principally through the Harkness Fellowships Program (see page 95), it also underlies the Fund's long interest in the Institute of International Education.

I.I.E. is the nation's foremost organization in the field of international educational exchange, with a substantial core program of counseling, advisory, and information services. For the maintenance and extension of these services, which are basic to its usefulness and quality as an institution, I.I.E. must rely upon private philanthropy and, since 1949, has received almost continuous support from The Commonwealth Fund.

I.I.E. is best known as an international contracting agency for the administration of educational exchange programs sponsored by national governments, international organizations, and private institutions and agencies from throughout the world. On behalf of this diverse range of sponsoring organizations, I.I.E. in 1973 operated approximately 400 programs, through which it disbursed more than $22 million in scholarships, fellowships, and grants. Under these programs, thousands of foreign students, scholars, businessmen, and artists were able to study at United States institutions for varying periods of time. The I.I.E. likewise provided extensive services in recruitment and placement of American students and professionals in foreign institutions. These tasks are handled by a professional staff of more than 200 serving in I.I.E.'s

New York headquarters, seven regional offices in the U.S., and three overseas offices.

I.I.E.'s role in its field, however, goes far beyond the volume of its administrative services. It has developed close ties with higher education in this country and the major graduate centers abroad to ensure that the individual participants in the exchanges it conducts are assisted in making the most of their experiences of studying and living in another country.

As a result, the college and university community has come to rely upon I.I.E. as an authoritative center of advice and information in the field of educational exchange. I.I.E. maintains and publishes the basic reference books on advanced education in the U.S. and other countries; conducts and publishes an annual statistical survey of U.S. and foreign educational exchanges; and services approximately 250,000 individual inquiries each year. Finally, its headquarters library is a major resource for educators, students, and officials concerned with international educational activities.

Such services have become more important as the number of foreign students studying on U.S. campuses has risen from 9,400 in the mid-1950s to more than 140,000 today, while the number of organizations and services for such students has declined noticeably in the last five years.

As mentioned above, the dollar total of sponsored programs conducted by I.I.E. reached $22 million last year; I.I.E. finances the management of this large volume of activity through indirect-cost charges to the sponsoring agencies. To finance its basic functions as an educational-service institution, however—for example, its advisory and reference services to colleges and universities—I.I.E.

depends upon individual, corporate, and foundation philanthropy.

During the coming year I.I.E. will undertake a complete assessment of its activities in the field of international exchange. The Fund made a one-year grant to I.I.E. for core support during this period of evaluation.

The United Fund of Greater New York, Inc.

The Fund made a contribution to the annual drive of the United Fund of Greater New York, Inc., in an amount that matched the aggregate contribution of the employees of The Commonwealth Fund.

FINANCIAL STATEMENTS,
SUPPLEMENTAL SCHEDULES, AND SUMMARIES
FOR THE YEARS ENDED JUNE 30, 1974 AND 1973
AND AUDITORS' OPINION

AUDITORS' OPINION

The Commonwealth Fund:

We have examined the balance sheet of The Commonwealth Fund as of June 30, 1974, the related statements of income account and principal account for the year then ended, and the supplemental schedules of investments and appropriations voted and summaries of appropriations and payments, and cash. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances. Securities owned as of June 30, 1974 were confirmed to us by the custodian.

In our opinion, the accompanying financial statements and supplemental schedules present fairly the financial position of the Fund at June 30, 1974 and the results of its operations for the year then ended, in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year; and the supplemental summaries, when considered in relation to the basic financial statements, present fairly in all material respects the information shown therein.

Haskins & Sells

Two Broadway
New York, N.Y. 10004
August 5, 1974

The Commonwealth Fund

BALANCE SHEET, JUNE 30, 1974 and 1973

ASSETS

	1974	*1973*
Investments, at book value (market valuation, 1974 —$110,280,497 and 1973—$144,627,707)	$92,535,374	$97,841,388
Cash	328,753	312,391
Land and Building at 1 East 75th Street, New York City (at appraised value at date of acquisition in 1950)	275,000	275,000
Furniture, Equipment and Leasehold (at nominal value)	1	1
Total Assets	$93,139,128	$98,428,780

LIABILITIES AND FUNDS

Principal Account	$87,394,920	$91,660,733
Unpaid Appropriations:		
Medical Education and Community Health	4,561,297	5,589,909
Harkness Fellowships Program	364,030	367,620
Book Program	193,834	251,745
Other	31,350	2,300
Federal Excise Tax Payable	288,335	302,391
Income Account—Unappropriated Balance	305,362	254,082
Total Liabilities and Funds	$93,139,128	$98,428,780

STATEMENT OF PRINCIPAL ACCOUNT

FOR THE YEARS ENDED JUNE 30, 1974 and 1973

	1974	*1973*
Principal Account, July 1:		
Endowment for general philanthropic purposes	$77,261,644	$77,261,644
Unappropriated net gain on securities sold or redeemed	14,399,089	13,571,175
Total	91,660,733	90,832,819
Changes during the year:		
Net gain on securities sold or redeemed (less provision for applicable Federal excise tax—none for 1974; $18,425 for 1973)	734,187	827,914
Appropriations from net gain on securities sold or redeemed	(5,000,000)	-0-
Net change	(4,265,813)	827,914
Principal Account, June 30:		
Endowment for general philanthropic purposes	77,261,644	77,261,644
Unappropriated net gain on securities sold or redeemed	10,133,276	14,399,089
Total	$87,394,920	$91,660,733

(See Notes To Financial Statements.)

The Commonwealth Fund

STATEMENT OF INCOME ACCOUNT

FOR THE YEARS ENDED JUNE 30, 1974 and 1973

	1974	1973
Income:		
Dividends on preferred and common stocks	$ 3,894,924	$ 3,681,952
Interest on bonds and notes	3,412,416	3,483,002
Total Income	7,307,340	7,164,954
Less provision for applicable Federal excise tax	285,000	276,000
	7,022,340	6,888,954
Expenses:		
Salaries	409,945	361,431
Retirement allowances:		
Contributions to annuity plan on behalf of current employees	53,389	47,773
Payments to retired employees under other plan	199,328	195,421
Other employee benefits	46,103	42,509
Building and office expenses	174,503	167,982
Investment management fees	100,000	62,000
Travel	38,327	33,540
Legal and audit fees	20,487	27,553
Consultation fees and honoraria	22,818	8,207
Furniture and equipment	11,285	12,239
Total Expenses	1,076,185	958,655
Excess of Income over Expenses	5,946,155	5,930,299
Unappropriated Balance, July 1	254,082	350,804
Appropriations cancelled	262,638	164,855
Total	6,462,875	6,445,958
Appropriations voted from current funds	6,157,513	6,191,876
Unappropriated Balance, June 30	$ 305,362	$ 254,082

(See Notes To Financial Statements.)

The Commonwealth Fund

SUMMARY OF APPROPRIATIONS AND PAYMENTS

FOR THE YEARS ENDED JUNE 30, 1974 and 1973

	1974	*1973*
Unpaid Appropriations, July 1	$ 6,211,574	$ 7,537,697
Appropriations Voted From:		
Current Year's Income account for:		
Medical education and community health	5,250,198	5,988,876
Harkness Fellowships Program	747,315	
Book Program	50,000	203,000
Other	110,000	
Total	6,157,513	6,191,876
Less appropriations cancelled	262,638	164,855
Net	5,894,875	6,027,021
Principal account-for medical education and community health	5,000,000	
Total appropriations voted—net	10,894,875	6,027,021
Total	17,106,449	13,564,718
Payments—net	11,955,938	7,353,144
Unpaid Appropriations, June 30	$ 5,150,511	$ 6,211,574

SUMMARY OF CASH

FOR THE YEARS ENDED JUNE 30, 1974 and 1973

	1974	*1973*
Balance, July 1	$ 312,391	$ 467,355
Receipts:		
Dividends and interest	7,307,340	7,164,954
Sales and redemptions of securities	29,790,658	27,971,328
Total	37,410,389	35,603,637
Disbursements:		
Payments of appropriations for:		
Medical education and community health	11,182,299	6,663,022
Harkness Fellowships Program	667,390	622,704
Book Program	107,911	114,428
Other	80,950	20,950
Total	12,038,550	7,421,104
Less refunds	82,612	67,960
Payments—net	11,955,938	7,353,144
Federal excise tax	299,056	286,018
Expenses	1,076,185	958,655
Purchases of securities	23,750,457	26,693,429
Total disbursements	37,081,636	35,291,246
Balance, June 30	$ 328,753	$ 312,391

(See Notes To Financial Statements.)

NOTES TO FINANCIAL STATEMENTS

1. Summary of Significant Accounting Policies:

   (a) Income and expenses are recorded by the Fund on a cash basis. Amounts which accrued at June 30, 1973 and 1974 are not material when considered in relation to the financial statements taken as a whole. Federal excise tax, however, is recorded on an accrual basis. Appropriations are voted from funds available during specified years and are recorded in such years.

   (b) Investments are carried at book value which represents cost, or market value at date of gift or bequest. Effective July 1, 1972, the Fund adopted the practice of determining gains and losses on dispositions of securities on the identified lot basis rather than on the average book value basis as in prior years. The change had no material effect on the accompanying financial statements. Gains and losses on dispositions of securities are recorded in the Principal Account. Appropriations from the accumulated net gain on dispositions of securities are voted by the Board of Directors from time to time.

   (c) The Fund has consistently expensed the costs of its acquisitions of furniture and equipment.

   (d) Expenses include those directly attributable to the operation of the Harkness Fellowships Program.

2. No Federal excise tax is payable with respect to the net gain on securities sold or redeemed during the year ended June 30, 1974 because the tax basis of such securities exceeded the proceeds derived therefrom.

The Commonwealth Fund

SCHEDULE OF INVESTMENTS, JUNE 30, 1974 and 1973

	1974		1973	
	Book Value	Market Valuation (see Note)	Book Value	Market Valuation (see Note)
Bonds and Notes				
Government	$ 4,224,680	$ 3,868,393	$ 5,752,741	$ 5,518,722
Public Utility	25,282,677	17,728,980	26,302,567	21,506,231
Oil	7,141,563	5,454,500	7,181,563	6,262,750
Industrial and miscellaneous	10,719,850	8,421,119	12,450,150	10,456,272
Bank	7,543,334	7,059,475	7,544,481	7,000,771
Railroad	1,265,604	1,052,687	1,265,604	1,142,343
Total bonds and notes	$56,177,708	$ 43,585,154	$60,497,106	$ 51,887,089
Preferred Stocks				
Public Utility	$ 250,272	$ 258,750	$ 1,061,950	$ 738,250
Industrial	-0-	-0-	1,446,381	717,500
Total preferred stocks	$ 250,272	$ 258,750	$ 2,508,331	$ 1,455,750
Common Stocks				
Public Utility	$ 4,675,773	$ 9,163,912	$ 5,731,122	$ 14,040,386
Oil	5,914 166	28,686,655	6,392,284	45,454,721
Industrial and miscellaneous	19,931,740	16,933,500	17,126,830	17,836,546
Bank	4,016,222	9,042,526	4,016,222	11,465,090
Railroad	1,569,493	2,610,000	1,569,493	2,488,125
Total common stocks	$36,107,394	$ 66,436,593	$34,835,951	$ 91,284,868
Total	$92,535,374	$110,280,497	$97,841,388	$144,627,707

(Details of June 30, 1974 investments on following pages.)

Note—The market valuation of investments represents quoted market value except for certain bonds and notes (with an aggregate book value and face amount approximating $4,030,000—1974 and $4,120,000—1973) which have no quoted market prices. Management and Chemical Bank, the Fund's custodian, have determined the aggregate market valuation of such securities to be approximately $2,940,000—1974 and $3,387,000—1973.

BONDS AND NOTES

Description	*Face Value*	*Book Value*	*Market Valuation*
Government:			
Treasury notes:			
5⅞%, due Feb. 15, 1976	$ 315,000	$ 315,196	$ 302,400
6½%, due May 15, 1976	900,000	900,375	871,875
Federal National Mortage Association participation certificates:			
6.40%, due Dec. 11, 1987	1,000,000	1,000,000	851,250
6.45%, due April 8, 1988	1,000,000	1,010,000	853,750
U.S. Dept. of Agriculture Farmers Home Administration note 8⅞%, due Jan. 31, 1975	999,109	999,109	989,118
Total government		$ 4,224,680	$ 3,868,393
Public utility:			
Alabama Power Co.:			
4⅝%, due May 1, 1987	$ 250,000	$ 250,000	$ 160,312
4⅞%, due May 1, 1989	200,000	196,625	124,750
American Telephone & Telegraph Co. debentures:			
4⅜%, due April 1, 1985	200,000	199,906	138,250
4¾%, due Nov. 1, 1992	400,000	398,900	249,500
5⅝%, due Aug. 1, 1995	1,000,000	991,250	700,000
8¾%, due May 15, 2000, with warrants	284,000	284,058	290,035
8¾%, due May 15, 2000, without warrants	116,000	112,085	113,535
5⅛%, due April 1, 2001	500,000	501,250	325,000
Notes 7¾%, due Dec. 1, 1977	500,000	501,875	482,500
Arkansas Power & Light Co. 4⅜%, due Feb. 1, 1993	375,000	374,562	215,156
Atlantic City Electric Co. 4⅜%, due March 1, 1993	200,000	200,000	116,750
Bell Telephone Co. of Canada:			
4.85%, due Sept. 1, 1995	250,000	250,004	142,187

BONDS AND NOTES (*continued*)

Description	*Face Value*	*Book Value*	*Market Valuation*
Public utility (*continued*)			
Bell Telephone Co. of Canada (*cont.*)			
6%, due Oct. 14, 1996	$1,000,000	$ 1,000,000	$ 667,500
Bell Telephone Co. of Pennsylvania debentures 6¾%, due May 1, 2008	1,000,000	1,000,000	790,000
Boston Edison Co. Series F 4⅝%, due June 1, 1987	150,000	148,531	93,937
Carolina Power & Light Co. 4⅞%, due April 1, 1990	325,000	324,031	205,968
Cincinnati Gas & Electric Co. 4⅛%, due May 1, 1987	100,000	99,250	62,000
Colorado Interstate Corp. 8%, due June 1, 1989	970,000	959,330	727,500
Columbia Gas System Inc. deb. 4⅝%, due Oct. 1, 1989	1,000,000	754,160	610,000
Commonwealth Edison Co.:			
8¾%, due Jan. 1, 1975	1,000,000	1,012,500	1,000,000
Series S 4¼%, due March 1, 1987	200,000	199,250	129,500
Series T 3¾%, due March 1, 1983	100,000	99,750	60,250
Series U 4⅝%, due March 1, 1990	300,000	298,875	191,250
Consolidated Edison Co. of New York Series O 4%, due June 1, 1988	200,000	198,500	80,500
Dallas Power & Light Co. 4¼%, due Feb. 1, 1993	100,000	100,000	58,250
Diamond State Telephone Co. debentures 4⅝%, due Sept. 1, 2005	450,000	449,752	250,875
Duke Power Co.:			
Sinking fund debentures 4⅞%, due Sept. 1, 1982	175,000	174,562	127,093
4½%, due Feb. 1, 1992	100,000	100,000	59,500
Duquesne Light Co.:			
3¾%, due April 1, 1988	100,000	99,500	56,438
4¼%, due March 1, 1989	200,000	197,750	113,000
Georgia Power Co. 4⅞%, due Nov. 1, 1990 (stamped)	400,000	398,555	253,500
Gulf Power Co. 4%, due Feb. 1, 1988	200,000	197,688	121,250
Hartford Electric Light Co.:			
4⅝%, due Oct. 1, 1988	165,000	163,762	102,093

BONDS AND NOTES (*continued*)

Description	*Face Value*	*Book Value*	*Market Valuation*
Public utility (*continued*)			
Hartford Electric Light Co. (*cont.*)			
4¼%, due April 1, 1993	$ 200,000	$ 198,500	$ 114,500
Houston Lighting & Power Co. 4⅞%, due Aug. 1, 1989	100,000	98,250	65,000
Idaho Power Co.:			
4½%, due Jan. 1, 1987	100,000	100,000	65,375
4%, due April 1 1988	200,000	200,000	120,750
Illinois Bell Telephone Co. Series F 4⅜%, due March 1, 1994	200,000	198,500	112,500
Illinois Power Co. 4¼%, due Jan. 1, 1993	300,000	299,875	172,875
Indiana Bell Telephone Co. debentures 4¾%, due Oct. 1, 2005	100,000	99,875	60,250
Indiana & Michigan Electric Co. 4⅜%, due Aug. 1, 1993	100,000	99,875	56,750
Louisiana Power & Light Co. 4¾%, due Jan. 1, 1987	250,000	248,125	163,750
Michigan Bell Telephone Co. debentures 4⅝%, due Aug. 1, 1996	100,000	99,875	60,375
Montana Power Co. 4½%, due April 1, 1989	250,000	246,812	154,375
Nevada Power Co. Series H 4⅝%, due Aug. 1, 1994	100,000	99,250	57,500
New York Telephone Co.:			
Series J 4½%, due May 15, 1991	300,000	297,438	187,500
Series L 4⅞%, due Oct. 1, 1997	200,000	199,938	123,000
Series N 4¼%, due Jan. 1, 2000	500,000	499,812	244,375
Niagara Mohawk Power Corp.:			
3⅞%, due June 1, 1988	200,000	198,750	116,000
4¾%, due April 1, 1990	350,000	347,688	219,187
Northern States Power Co. 4%, due July 1, 1988	200,000	200,000	113,000
Ohio Edison Co.:			
4½%, due April 1, 1989	250,000	247,375	157,187
4¾%, due June 1, 1991	150,000	148,125	95,812
Ohio Power Co. 4⅝%, due April 1, 1989	250,000	249,125	149,062

BONDS AND NOTES (*continued*)

Description	*Face Value*	*Book Value*	*Market Valuation*
Public utility (*continued*)			
Oklahoma Gas & Electric Co.:			
3⅞%, due June 1, 1988	$ 100,000	$ 98,625	$ 54,750
4¼%, due March 1, 1993	250,000	248,750	130,000
Pacific Gas & Electric Co.:			
Series CC 3¾%, due Dec. 1, 1978	200,000	199,306	165,000
Series AA 4½%, due Dec. 1, 1986	200,000	200,000	134,000
Series DD 4½%, due June 1, 1990	150,000	149,813	93,750
Series II 4¼%, due June 1, 1995	200,000	200,000	108,500
Pacific Telephone & Telegraph Co. debentures 4⅝%, due Nov. 1, 1990	450,000	447,375	286,312
Pennsylvania Power Co. 8%, due June 1, 1999	1,000,000	1,018,125	886,250
Philadelphia Electric Co. 3¾%, due May 1, 1988	100,000	98,750	57,500
Potomac Edison Co.:			
4⅝%, due May 1, 1987	200,000	198,000	128,250
7%, due April 1, 1998	1,000,000	993,750	758,750
Public Service Co. of Oklahoma Series G 3⅞%, due May 1, 1988	200,000	199,120	119,250
Public Service Electric & Gas Co.:			
Debentures 4⅝%, due March 1, 1977	87,000	87,000	74,928
4⅝%, due Aug. 1, 1988	200,000	199,043	127,250
4¾%, due Sept. 1, 1990	200,000	200,000	127,500
Savannah Electric & Power Co. 8½%, due Nov. 1, 1975	500,000	502,500	500,000
Southern Bell Telephone & Telegraph Co. debentures:			
4⅝%, due Dec. 1, 1993	100,000	99,875	60,250
8%, due July 1, 1999	1,000,000	1,010,000	915,000
4⅝%, due Aug. 1, 2003	200,000	200,000	115,250

BONDS AND NOTES (*continued*)

Description	*Face Value*	*Book Value*	*Market Valuation*
Public utility (*continued*)			
Southern California Edison Co. Series M 4⅜%, due Sept. 1, 1985	$ 250,000	$ 246,875	$ 167,187
Southern Electric Generating Co. 1960 Series 5¼%, due June 1, 1992	162,000	163,256	104,895
Southwestern Bell Telephone Co. debentures 4⅝%, due Aug. 1, 1995	550,000	549,625	320,375
Union Electric Co. 4¾%, due Sept. 1, 1990	500,000	495,688	318,750
Virginia Electric & Power Co. Series P 4⅜%, due Sept. 1, 1990	300,000	300,000	189,000
Washington Water Power Co.:			
Sinking fund debentures 4½%, due Jan. 1, 1983	150,000	138,750	104,250
4¾%, due Feb. 1, 1989	225,000	225,000	139,781
4⅝%, due Sept. 1, 1994	200,000	200,002	114,750
Total public utility		$25,282,677	$17,728,980
Oil:			
Continental Oil Co. debentures 4½%, due May 1, 1991	$ 150,000	$ 148,875	$ 102,000
Exxon Corp. debentures:			
6%, due Nov. 1, 1997	1,000,000	1,000,000	741,250
6⅛%, due July 15, 1998	1,000,000	1,000,000	787,500
Great Canadian Oil Sands, Ltd. notes 5¾%, due July 1, 1991	880,000	880,000	649,000
Lakehead Pipe Line sinking fund debentures 7⅛%, due April 15, 1993	1,000,000	995,313	802,500
Standard Oil Co. of California sinking fund debentures 4⅜%, due July 1, 1983	700,000	665,500	511,000
Standard Oil Co. (Indiana) debentures 6%, due Sept. 15, 1991	1,500,000	1,451,875	1,151,250

BONDS AND NOTES (*continued*)

Description	*Face Value*	*Book Value*	*Market Valuation*
Oil (*continued*)			
Texaco, Inc. sinking fund debentures 5¾%, due July 15, 1997	$ 1,000,000	$ 1,000,000	$ 710,000
Total oil		$ 7,141,563	$ 5,454,500
Industrial and miscellaneous:			
Allied Chemical Corp. debentures:			
3½%, due April 1, 1978	$ 500,000	$ 490,000	$ 455,625
5.20%, due Nov. 1, 1991	1,150,000	1,021,625	815,062
Anheuser-Busch, Inc. debentures 6%, due July 1, 1992	1,000,000	1,000,000	762,500
CIT Financial Corp. debentures 4½%, due Sept. 1, 1984	150,000	148,995	105,750
Commercial Credit Co. notes 4¼%, due Oct. 1, 1974	200,000	198,250	196,000
Fibers International Corp. sinking fund notes 6¼%, due Dec. 15, 1986	1,000,000	1,000,000	787,500
Firestone Tire & Rubber Co. debentures:			
3¼%, due May 1, 1977	120,000	114,525	106,200
4¼%, due July 1, 1988	250,000	249,562	159,687
Ford Motor Credit Corporation notes 8⅜%, due Nov. 1, 1976	500,000	502,375	490,000
General Electric Co.:			
Notes 5¾%, due Nov. 1, 1991	900,000	900,000	694,125
Debentures 5.30%, due May 1, 1992	750,000	595,950	545,625
General Motors Acceptance Corp. debentures 4%, due March 1, 1979	1,000,000	987,500	805,000
Inland Steel Co. Series J 3½%, due July 1, 1981	500,000	489,875	365,000
Liggett & Myers Tobacco Co. sinking fund debentures 6%, due May 1, 1992	1,500,000	1,438,750	1,021,875
National Distillers & Chemical Corp. sinking fund debentures 5%, due May 1, 1983	192,000	190,560	129,600

BONDS AND NOTES (*continued*)

Description	*Face Value*	*Book Value*	*Market Valuation*
Industrial and miscellaneous (*continued*)			
National Steel Corp.:			
3⅞%, due Nov. 1, 1986	$ 100,000	$ 99,625	$ 63,125
4⅝%, due June 1, 1989	97,000	96,758	66,445
United States Steel Corp. sinking fund debentures 4½%, due April 15, 1986	1,200,000	1,195,500	852,000
Total industrial and miscellaneous		$10,719,850	$ 8,421,119
Bank:			
Capital notes:			
Chase Manhattan Bank 4.60%, due June 1, 1990	$ 630,000	$ 613,325	$ 445,725
Crocker-Citizens National Bank (California) 4.60%, due April 1, 1989 (Callable)	200,000	200,009	138,750
Debentures:			
Charter New York Corp. debentures 5¾%, due August 1, 1991	1,000,000	1,000,000	745,000
Certificates of Deposit:			
Bank of America:			
11¼%, due July 8, 1974	500,000	500,000	500,000
11⅛%, due July 15, 1974	700,000	700,000	700,000
10⅛%, due July 22, 1974	300,000	300,000	300,000
Bankers Trust Co.:			
10.30%, due July 1, 1974	$ 400,000	$ 400,000	$ 400,000
10.80%, due July 15, 1974	300,000	300,000	300,000
10.90%, due July 17, 1974	280,000	280,000	280,000

BONDS AND NOTES (*continued*)

Description	*Face Value*	*Book Value*	*Market Valuation*
Bank (*continued*)			
Chase Manhattan Bank:			
10³/₄%, due July 5, 1974	1,300,000	1,300,000	1,300,000
10³/₄%, due August 2, 1974	700,000	700,000	700,000
11¹/₈%, due August 5, 1974	1,250,000	1,250,000	1,250,000
Total bank		$ 7,543,334	$ 7,059,475
Railroad:			
Canadian Pacific Railway Co. Equipment Trust Series R 6³/₈%, due July 17, 1982	$ 500,000	$ 499,250	$ 418,750
Southern Pacific Co., Oregon Lines, Series A 4¹/₂%, due March 1, 1977	500,000	472,934	445,625
Virginia Railway Co. subordinated income debentures 6%, due Aug. 1, 2008	287,500	293,420	188,312
Total railroad		$ 1,265,604	$ 1,052,687
TOTAL BONDS AND NOTES		$46,177,708	$43,585,154

PREFERRED STOCK

Description	*Shares*	*Book Value*	*Market Valuation*
Public utility:			
American Telephone & Telegraph Co. $4.00 cumulative convertible	5,000	$ 250,272	$ 258,750
TOTAL PREFERRED STOCK		$ 250,272	$ 258,750

COMMON STOCKS

Public utility:			
American Telephone & Telegraph Co.	99,226	$ 2,547,993	$ 4,626,412
Central & Southwest Corp.	40,000	129,367	530,000
Houston Lighting & Power Co.	20,000	68,413	415,000

COMMON STOCKS (continued)

Description	*Shares*	*Book Value*	*Market Valuation*
Public utility (*continued*)			
Idaho Power Co.	30,000	$ 262,565	$ 720,000
Oklahoma Gas & Electric Co.	30,600	137,615	573,750
Pacific Gas & Electric Co.	30,000	510,515	618,750
Public Service Co. of Indiana, Inc.	20,000	334,334	580,000
Southern Natural Resources, Inc.	10,000	569,197	400,000
Texas Utilities Co.	40,000	115,874	700,000
Total public utility		$ 4,675,773	$ 9,163,912
Oil:			
Exxon Corp.	145,086	$ 2,147,667	$10,174,155
Mobil Oil Corp.	250,000	1,955,922	10,031,250
Standard Oil Co. of California	255,000	1,592,786	6,821,250
Standard Oil Co. (Indiana)	20,000	217,791	1,660,000
Total oil		$ 5,914,166	$28,686,655
Industrial and miscellaneous:			
Ætna Life & Casualty Co.	24,000	$ 870,811	$ 567,000
Aluminum Co. of America	15,000	797,055	633,750
Bethlehem Steel Corp.	4,000	199,404	120,000
Betz Laboratories, Inc	12,000	316,470	405,000
Dresser Industries	10,000	379,297	435,000
E. I. duPont deNemours & Co.	5,000	860,840	808,750
Eastman Kodak Co.	8,000	87[illegible],435	831,000
Federated Department Stores, Inc.	10,000	515,266	310,000
Ford Motor Company	18,000	1,178,902	882,000
General Motors Corp.	27,000	1,887,673	1,312,875
Government Employees Insurance Co.	10,400	559,889	196,300

COMMON STOCKS *(continued)*

Description	*Shares*	*Book Value*	*Market Valuation*
Industrial and miscellaneous:			
Hanna Mining Co.	10,000	$ 353,764	$ 246,250
Hughes Tool Co.	5,000	236,750	325,000
Ingersoll Rand Co.	10,000	859,305	751,250
International Business Machines Corp.	9,500	2,292,189	2,021,125
Johnson & Johnson	6,500	782,038	736,125
Kennecott Copper Corp.	10,000	447,065	327,500
Merck & Co.	14,000	820,176	1,099,000
Nabisco Inc.	20,000	838,683	652,500
Natomas Co.	2,200	237,241	119,075
Northwestern Steel & Wire Co.	18,000	337,779	713,250
Phelps Dodge Corp.	10,000	310,631	351,250
Polaroid Corp.	5,000	702,578	171,875
Schering—Plough Corporation	20,000	1,382,272	1,310,000
Sears Roebuck & Co.	10,000	549,433	828,750
Texas Eastern Transmission Corp.	20,000	919,303	470,000
United States Steel Corp.	7,000	476,471	308,875
Total industrial and miscellaneous		$19,931,740	$16,933,500
Bank:			
Bankers Trust New York Corp.	15,500	$ 440,966	$ 604,500
Chase Manhattan Bank, N.A.	35,802	525,869	1,279,921
Chemical New York Corp.	53,490	1,043,866	1,738,425
Citicorp	88,320	1,302,209	2,737,920
First National Boston Corp.	22,600	224,115	678,000
J. P. Morgan & Co., Inc.	38,720	479,197	2,003,760
Total bank		$4,016,222	$9,042,526

COMMON STOCKS (*continued*)

Description	*Shares*	*Book Value*	*Market Valuation*
Railroad:			
Santa Fe Industries Corp.	25,000	$ 487,651	$ 750,000
Southern Pacific Co.	60,000	1,081,842	1,860,000
Total railroad		$1,569,493	$2,610,000
TOTAL COMMON STOCKS		$36,107,394	$66,436,593
TOTAL INVESTMENTS		$92,535,374	$110,280,497

See Note on Page 117.

The Commonwealth Fund

SCHEDULE OF APPROPRIATIONS VOTED

DURING THE YEAR ENDED JUNE 30, 1974

Medical Education and Community Health

Columbia-Presbyterian Medical Center—Construction of a Major "Library-Health Sciences Center" and Other Capital Campaign Projects	$5,000,000
Brown University—Transition to an M.D. Degree Program	600,000
City College of The City University of New York—Six-Year Track to the M.D. Degree for Students Committed to Medical Practice in Urban Areas	300,000
University of Rochester School of Medicine and Dentistry—Post-Graduate Program to Prepare Pediatricians for Teaching and Research in the Emerging Field of Child Development (See Note A)	287,379
Peter Bent Brigham Hospital/Children's Hospital Medical Center—Shortened Curriculum for the Preparation of Clinically-Oriented Cardiologists able to Provide Both Adult and Pediatric Care (See Note A)	189,535
Mount Zion Hospital and Medical Center—Model Program to Train a New Category of Practitioner in the Field of Mental Health	225,000
Northwestern University Medical School—Evaluation of the Accelerated Premedical/Medical Program Inaugurated in 1961	51,514
Tufts-New England Medical Center—Definition of the Role and Educational Requirements of the "Primary Care Physician"	120,000
Association of Medical School Pediatric Department Chairman, Inc.—Renewed Support for a Program to Bring Emeritus Professors of Pediatrics Back into Active Teaching Service	22,400
National Medical Fellowships, Inc.—Expansion of Assistance to Minority-group Medical Students (See Note A)	95,000
Yale University School of Medicine—Special Laboratory Equipment for the New Division of Cell Biology	23,700
National Academy of Sciences—Core Support for the Institute of Medicine	600,000

National Academy of Sciences-Institute of Medicine—Staff Support for the Committee on Education in the Health Professions	$ 25,000
Harvard University—Support for Postdoctoral Fellowships at the Center for Community Health and Medical Care	225,000
National Health Council, Inc.—Program to Strengthen Private-Sector Organizations and Agencies Working in Health	100,000
Harvard University Medical School—Completion of the "Study of Surgical Services to the United States"	50,000
Harvard University School of Public Health—Center for the Evaluation of Clinical Procedures	225,000
Harvard University—Interdisciplinary Effort to Analyze and Improve Public Understanding of the Role of Science (See Note A)	24,300
Roosevelt Hospital of New York—Model for Comprehensive Consumer Health Education in the Community Hospital Setting	346,628
Children's Television Workshop—Production of a Television Series on health for Nationwide Broadcast (See Note A)	100,000
University of Miami School of Medicine—Renewed Support for Study and Improvement of the Medical Care Available to Ethnically-Diverse Populations in the Inner City	149,595
The Community Blood Council of Greater New York, Inc.—Construction or Renovation of Facilities for Service, Research, and Education	100,000
Maternity Center Association/Downstate Medical Center—Renewed Support for the Training of Nurse-Midwives	38,450
Stanford University School of Medicine—Renewed Support for University-wide Program on Aggression and Violence in Modern Society	319,731
The Population Council—Prepackaged Lecture Series on Population for Use in Medical and Nursing Schools in the Developing World	78,500
University of California, San Francisco—Production and Testing of Audio-Visual and Other Materials to Aid in Sex and Marriage Counseling	24,000
Planned Parenthood-World Population—Center for Family Planning Program Development (See Note A)	300,000
Pan American Federation of Associations of	

Medical Schools—Core Support for the Federation's Executive Office (See Note A)	$ 90,000
Total Medical Education and Community Health	$9,710,732
Commonwealth Fund Book Program	
Subsidy for Liaison with Harvard University Press	50,000
Grant-in-aid component (See Note A)	125,000
President's Revolving Fund for 1974–75 (See Note A)	225,000
Harkness Fellowships Program (See Note A)	786,190
Other Appropriations	
Institute of International Education	20,000
Total	$10,916,922

NOTES:

(A) During the year ended June 30, 1974, the Board of Directors and the Executive Committee voted appropriations of $2,198,104 and $24,300, respectively, from funds available during the year ended June 30, 1975. Such appropriations are not recognized in the accompanying financial statements.

(B) The above Schedule of Appropriations Voted excludes $2,462,995 voted in 1972–73 from the funds of 1973–74.

The Commonwealth Fund

DISBURSEMENTS FROM PRESIDENT'S REVOLVING FUND

FOR THE YEAR ENDED JUNE 30, 1974

Association of American Medical Colleges	$ 15,000
College of Medicine & Dentistry of New Jersey	10,000
College of Medicine & Dentistry of New Jersey	10,000
Stanford University School of Medicine	13,255
New York University School of Medicine	10,000
National Academy of Sciences—Institute of Medicine	10,000
Harvard University Medical School	21,500
The Conference Board	5,000
University of Virginia	10,000
American Arbitration Assoication	21,000
American Arbitration Association	5,000
Nutrition Foundation, Inc.	20,000
Hunterdon Medical Center, New Jersey	3,700
Hunterdon Medical Center, New Jersey	379
The Roosevelt Hospital	10,000
Educational Facilities Laboratories, Inc.	20,000
University of Washington, Seattle	13,015
Faculty-Student Association-Downstate Medical Center	5,000
University of Pennsylvania School of Medicine	15,000
National Council on Alcoholism	5,000
United Fund of Greater New York	651
Restored to Unappropriated Income	1,500
Total	$225,000

During the year ended June 30, 1973, an amount of $225,000 was appropriated to the President's Revolving Fund for disbursements during the fiscal year 1973/74.